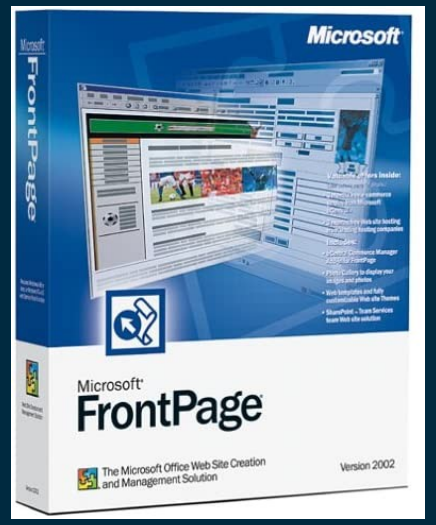
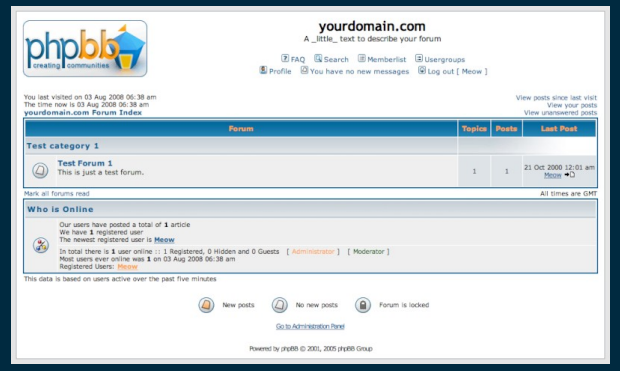
green
open source
hosting

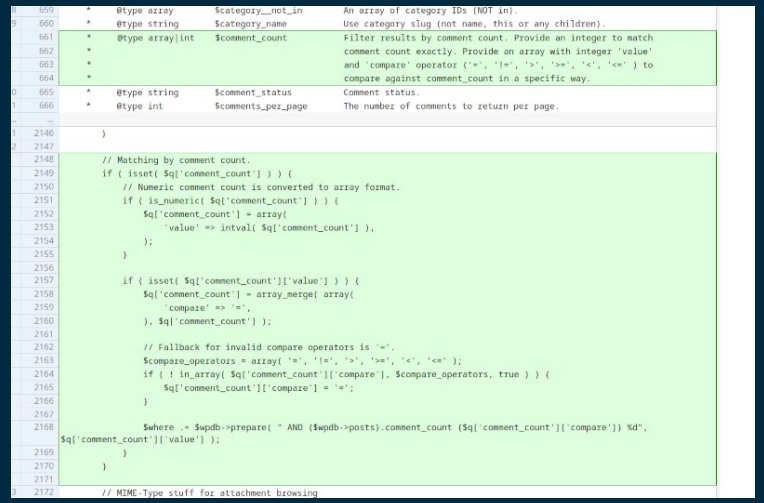
Sustainable websites & Sustainable Business

Ramon Fincken – CEO Halvar.io

About me







```
     *     @type array       $category__not_in      An array of category IDs (NOT in).
     *     @type string      $category_name         Use category slug (not name, this or any children).
     *     @type array|int   $comment_count         Filter results by comment count. Provide an integer to match
     *                                              comment count exactly. Provide an array with integer 'value'
     *                                              and 'compare' operator ('=', '!=', '>', '>=', '<', '<=' ) to
     *                                              compare against comment_count in a specific way.
     *     @type string      $comment_status        Comment status.
     *     @type int         $comments_per_page     The number of comments to return per page.

     )

     // Matching by comment count.
     if ( isset( $q['comment_count'] ) ) {
         // Numeric comment count is converted to array format.
         if ( is_numeric( $q['comment_count'] ) ) {
             $q['comment_count'] = array(
                 'value' => intval( $q['comment_count'] ),
             );
         }

         if ( isset( $q['comment_count']['value'] ) ) {
             $q['comment_count'] = array_merge( array(
                 'compare' => '=',
             ), $q['comment_count'] );

             // Fallback for invalid compare operators is '='.
             $compare_operators = array( '=', '!=', '>', '>=', '<', '<=' );
             if ( ! in_array( $q['comment_count']['compare'], $compare_operators, true ) ) {
                 $q['comment_count']['compare'] = '=';
             }

             $where .= $wpdb->prepare( " AND {$wpdb->posts}.comment_count ($q['comment_count']['compare']) %d",
$q['comment_count']['value'] );
         }
     }

     // MIME-Type stuff for attachment browsing
```

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What this talk is not about

https://www.imdb.com/title/tt0701083/mediaviewer/rm2559510528/

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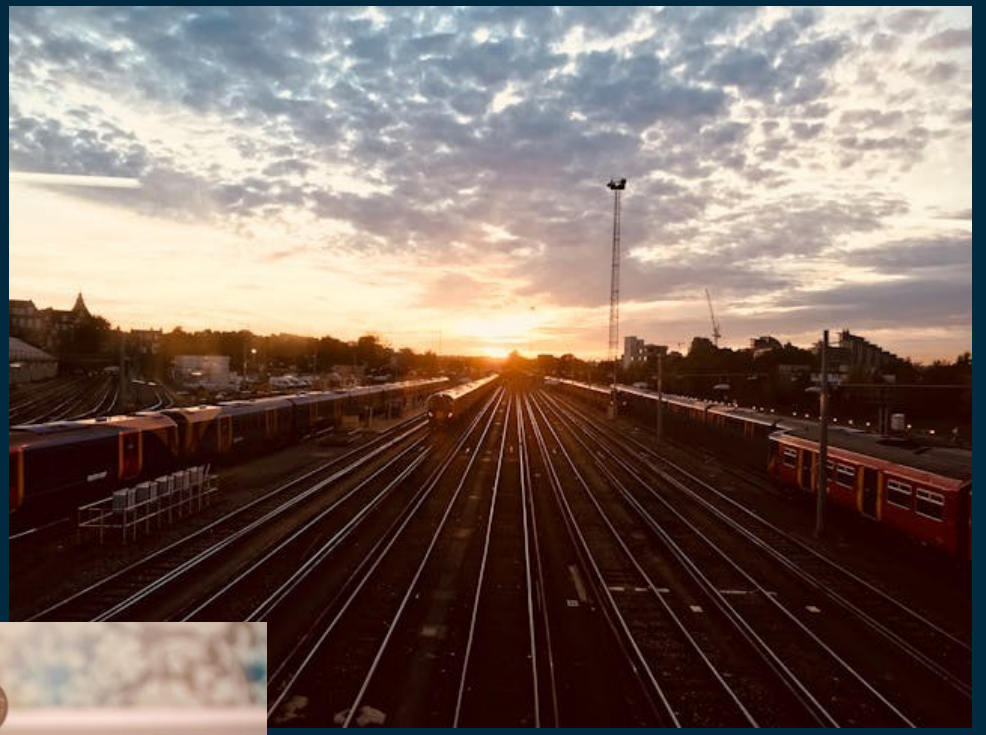
What this talk is about



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But first, the dictionary

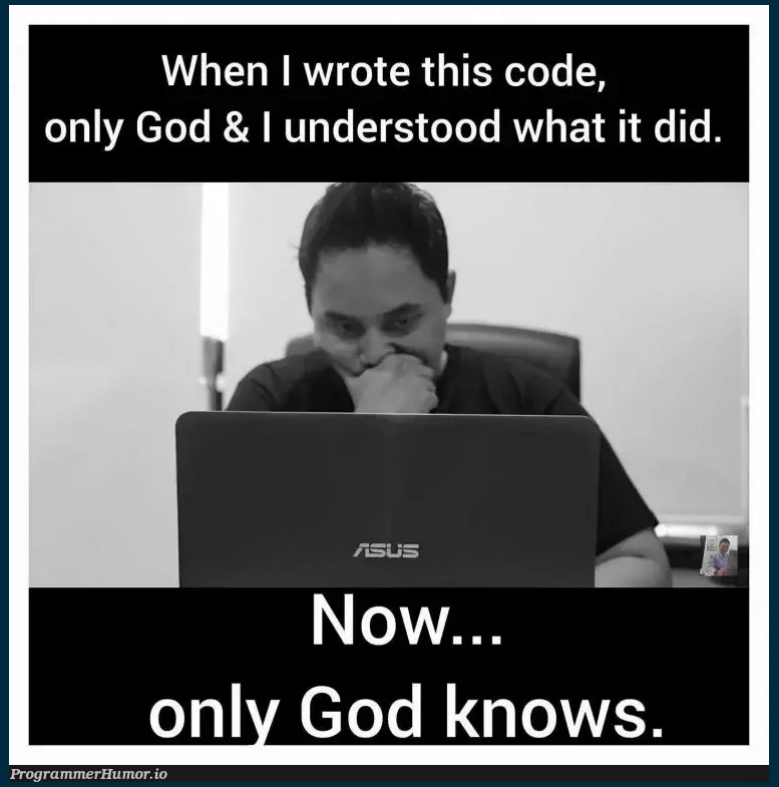
"Capable of being maintained or continued at a certain rate or level."

"Designating forms of human activity (esp. of an economic nature) in which environmental degradation is minimized, esp. by avoiding the long-term depletion of natural resources"

Let's start with websites
(Because building stuff is awesome)

```
switch (true) {
  case $shorts && !$videos:
    $command .= '/shorts';
    break;

  case !$shorts && $videos:
    $command .= '/videos';
    break;
}
```



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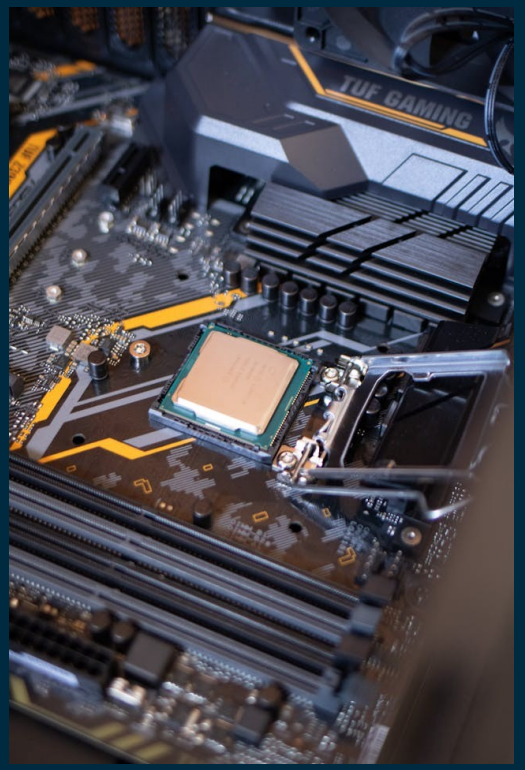
How CPU (processor) speed and PHP really work



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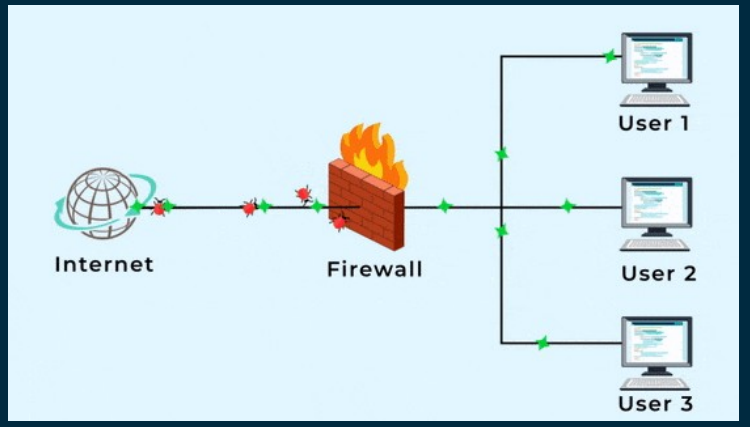
Therefore, next to smart code:

Use PHP APC/Opcache, redis/Valkey, varnish, CDN, ..
But also internet and content firewalls



https://www.simplilearn.com/tutorials/cyber-security-tutorial/what-is-firewall

And .. smart code!

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Making your code ~~smart~~ more sustainable

```php
<?php

if( some_very_slow_function() && $var_that_might_exist ) {
        // Do stuff here
}
```

```php
<?php

if( $var_that_might_exist && some_very_slow_function()) {
        // Do stuff here
}
```

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Cache ~~all the~~ expensive things!

Next to Page Cache and Dynamic Page Cache,
↘ D8 has CacheableDependencyInterface

[Max-age, context and tags] === ‘your friend’

Info and examples:
https://www.drupal.org/docs/drupal-apis/render-api/cacheability-of-render-arrays
https://www.drupal.org/docs/8/api/cache-api/cacheabledependencyinterface-friends

https://www.drupalatyourfingertips.com/caching

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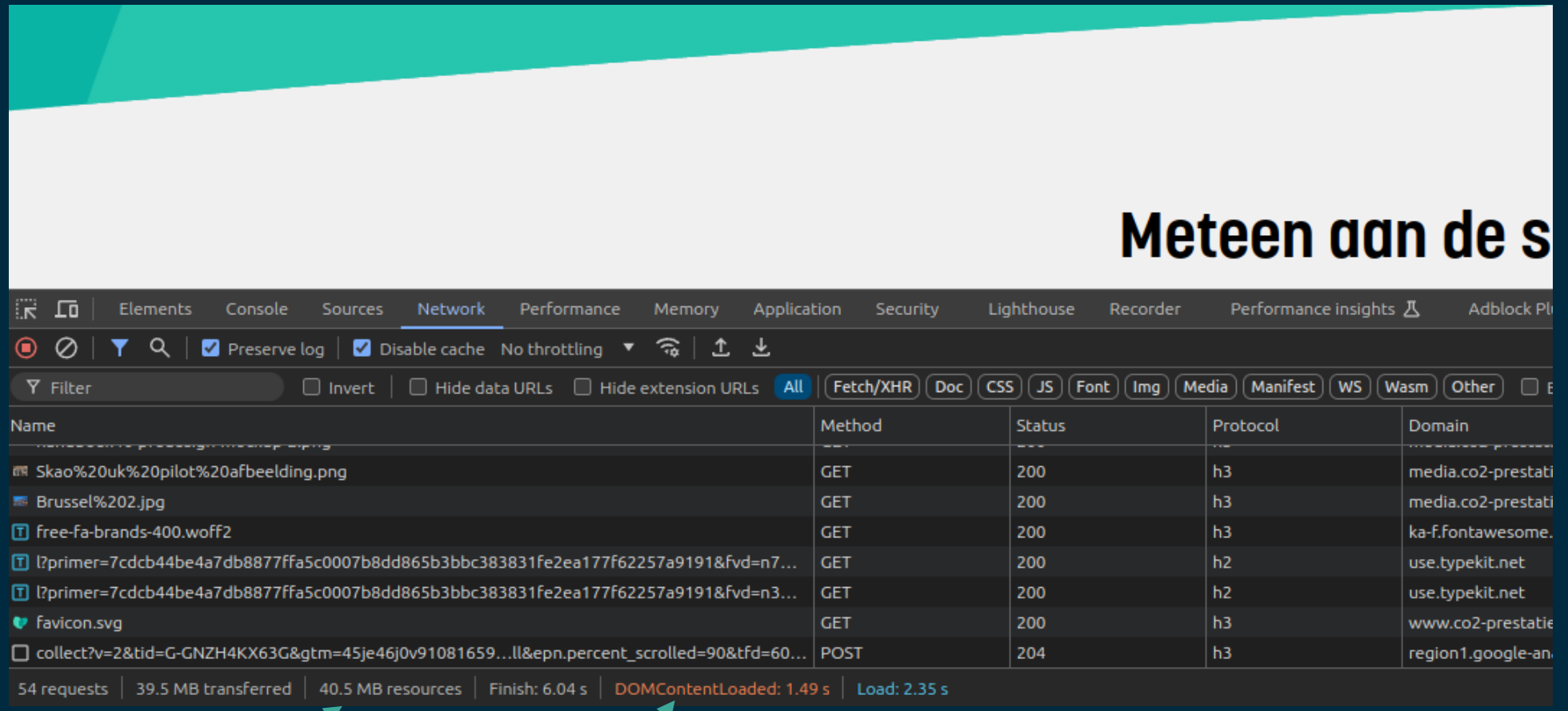
Low hanging fruit (aka doing stuff right)



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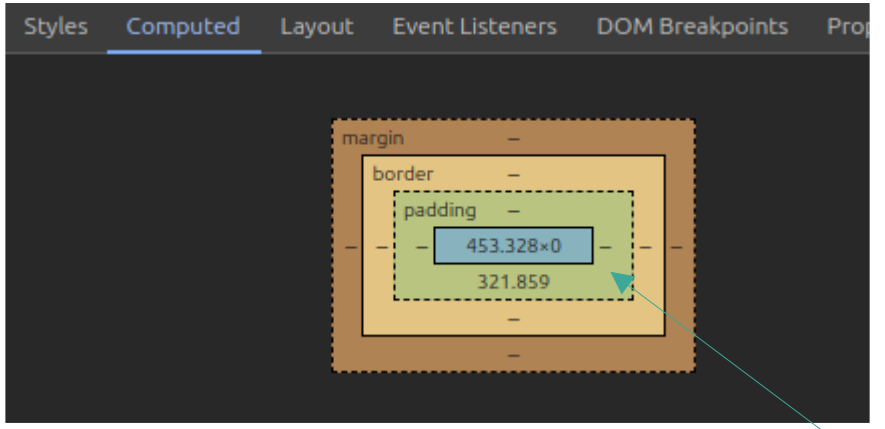
20 juni 2024 12:16

HEIJMANS INTRODUCEERT AFVALMONITOR IN SAMENWERKING MET RENEWI

11 juni 2024 12:00

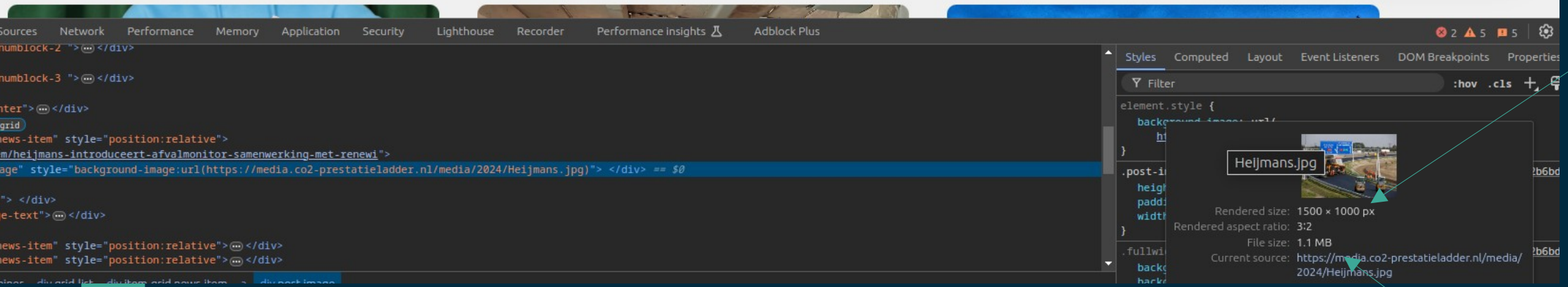
VAN TIENTALLEN MAATREGELEN NAAR EEN DOELGERICHT PLAN RICHTING NUL UITSTOOT



EMISSIES VOOR BOUWSEC

Prestatieladder

Meld je aan



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Could'nt resist to calculate a single image

You can CDN all you want but ... you are still sending 1.500.000 pixels (1500*1000 pixels) **1.1 MB** filesize per image.

That is presented at .. 148.584 pixels (453*328 pixels) which is 10 times less pixels.

I have done some maths on that size:

- png = 285 kb (**4 times smaller**)
- jpg 90% = 71.7 kb (**15 times smaller**)

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So ...

↘ Panda/Smush is nice but ... *please* select/upload the (approx.) pixels you intend to use

↘ Where possible: webp/avif formats

↘ Use a green webhost (and I mean really green, not just green energy)
Question: Does anyone know why green power is easy ?

↘ Use caching (remember Varnish and CacheableDependencyInterface and friends)

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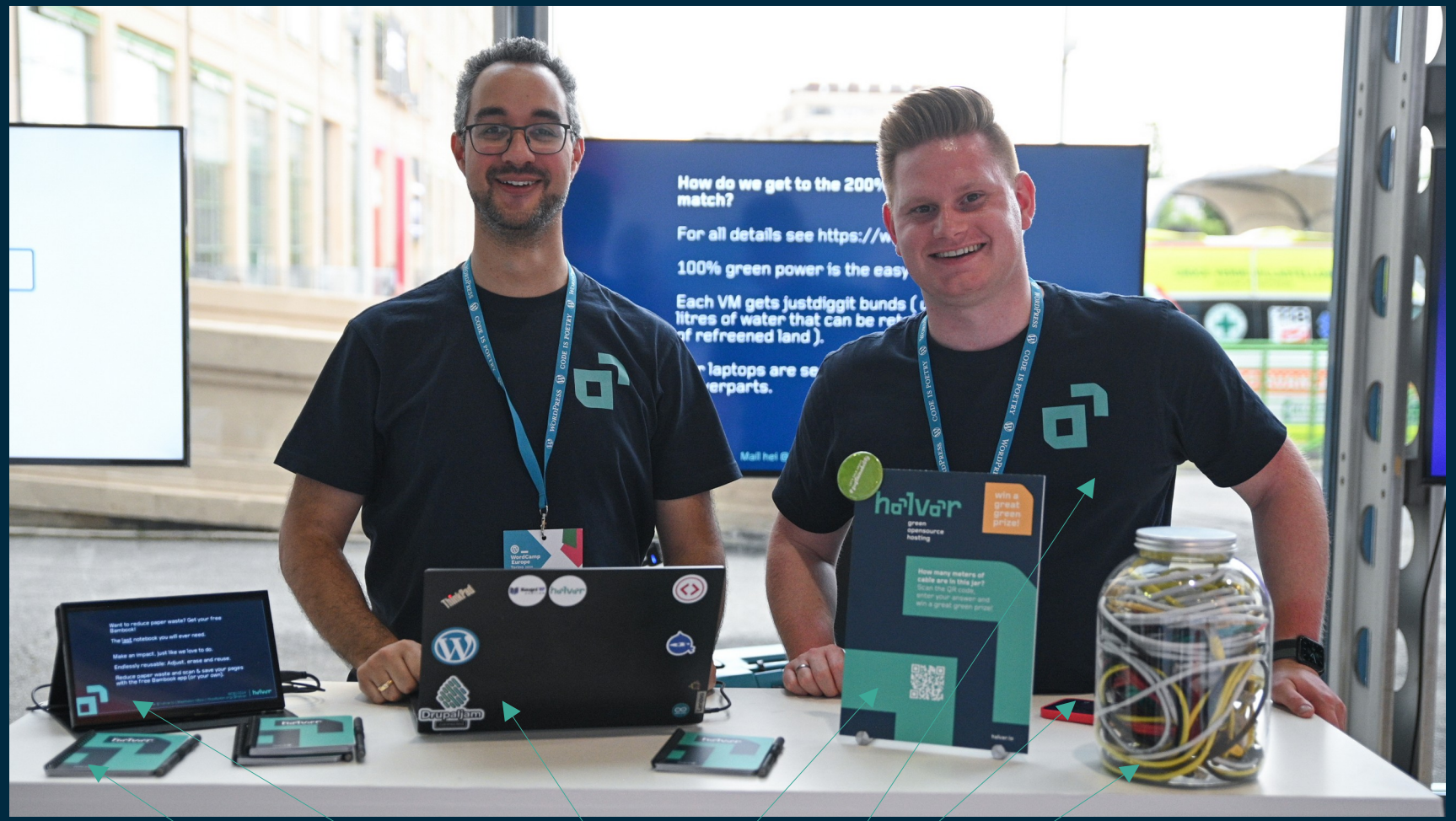
Gear, goodies and promotion materials



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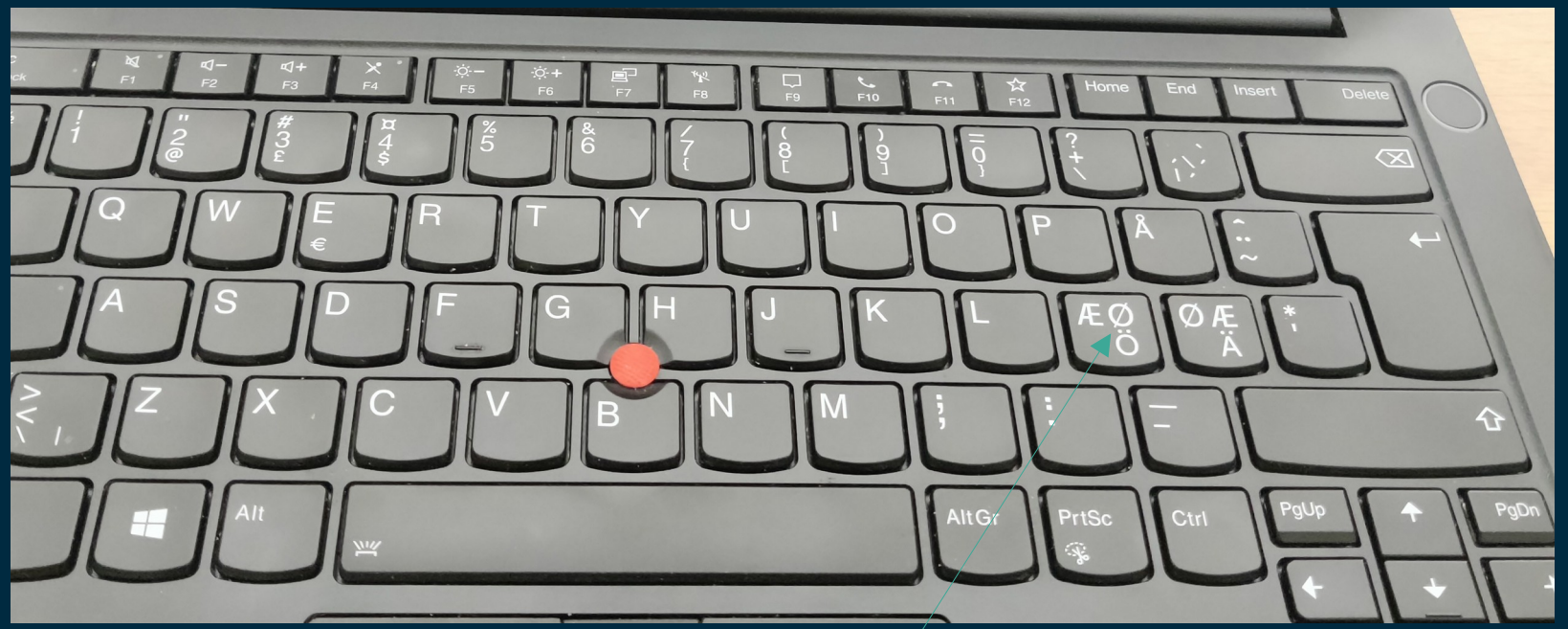
Gear, goodies and promotion materials



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Traveling has a big impact

Single trip Amsterdam – Barcelona

Total Bus & Rail Footprint = 0.01 tonnes of CO_2e **Offset Now**

Total Flights Footprint = 0.35 tonnes of CO_2e **Offset Now**

1 stop 5 hr 55 min LTN	165 kg CO2e +53% emissions ⓘ
Nonstop	98 kg CO2e -9% emissions ⓘ

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Make it easy on yourself:

- Buy a train off-peak-hours subscription
- Install the flixbus app (or any other)
- Pick your hotel near your congress venue, or well connected with public transport
- Offset your travels and ICT via Justdiggit (or any other)

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The ~~party~~ sustainability goes on

If you have any questions, ask me now, visit our stand (win great ANC headphones), or email us: **hei @ halvar.io**

We will make time to discuss your sustainable challenges and show you way more then we could on stage today :)

https://www.halvar.io/s/dc2024/

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Halvar hosting

GDPR / AVG / DSVGO-safe Open Source hosting
that is also **200 % sustainable.**

Go crazy with installing whatever you want:

Drupal, Symphony, WordPress, Cake,
Matomo, PhpBB, your custom CMS, ..

We even offer pure static HTML hosting.

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Gear, goodies and promotion materials

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How do we get to the 200% green energy match?

For all details see https://www.halvar.io/faq/

100% green power is the easy part

Each VM gets justdiggit bunds (up to 10500 litres of water that can be retained and 620m2 of refreened land).

Our laptops are second hand so as some of our serverparts.

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How do we get to the 200% green energy match? (cont.)

For all details see https://www.halvar.io/faq/

We travel by train and bus (Amsterdam – Turins as well).

We have 1 NFC / QR business card each.

Even our bank (ASN bank) is only investing in sustainable projects.

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