

# Inspiring Webinar for Introducing the Green Tech Hackathon Topics & Logistics

It was a dark, cold Tuesday morning... when a group of enthusiastic hackers looked at each other through the panes & tubes of the technologies they deemed unsustainable, and they were ready to do something about it - next week! This day, we wanted to have more talks - to get inspired and to prepare for the upcoming hackathon.

At our events we mostly have a very specific technical topic (DNS, IPv6, measurements tools...) and the projects proposals are practical/hands-on, usually resulting in software or some other digital product. This time, however, we have a much broader subject, plus the timing seems to be in parallel with multiple other events - so several people approached me to offer their presentation (instead of a project that can be worked on).

I saw a potential in these talks - to serve as a source of inspiration, and even an introduction, to narrow down what we mean by “sustainable technologies”.

The results were amazing - uplifted spirits, great examples and advice shared, with rich diversity of angles: green business, software development & academic analysis. We received recommendations on how to: set goals, use storytelling, measure (and reduce) power consumption, and how to consider bigger picture.

- When: 3rd December 2024, 9AM CET - 10:30 CET
- Where: on Zoom event
- Who: all registered participants, & guests
- Why: for Inspiration & Introduction.
- What: Topics, speakers & their slides :
  1. "Welcome to Our Hackathon!" By Vesna Manojlovic
  2. “Start at the end.”, by Hannah Smit + slides [Start at the end RIPE hackathon-2.pdf](#)
  3. “>Juice Sucking Servers< , and how you can make them more efficient”, by Axel Roest + slides [Juice Sucking Servers RipeNCC.pdf](#)
  4. "Green Tech Digital Innovation Competition accompanying research", by Dr. Stefanie Kunkel
  5. "Logistics & Practical Information for the hackathon participants", by Vesna Manojlovic + slides [Introduction To... Green Tech Hackathon 2024.](#)
  6. Open Discussion, Q&A

Recording is available here: (Passcode: dt&%4Rr6 ) [https://ripe.zoom.us/rec/share/RVBTYnIo624qDeDf-y60BJkFfA9Zi6c7AEwUZhPG7EDz7meKvFO8cBGmbgFQ0Dmo.APCfWdJws-3cQsB\\_](https://ripe.zoom.us/rec/share/RVBTYnIo624qDeDf-y60BJkFfA9Zi6c7AEwUZhPG7EDz7meKvFO8cBGmbgFQ0Dmo.APCfWdJws-3cQsB_)

Screenshots from the talks by Hannah, Axel & Stefanie:

# Is it to get to these kind of goals?

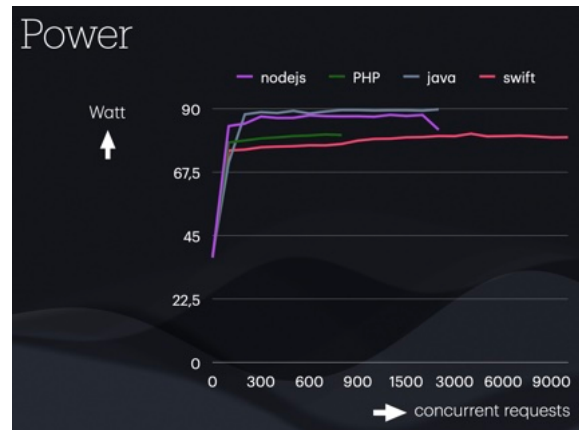
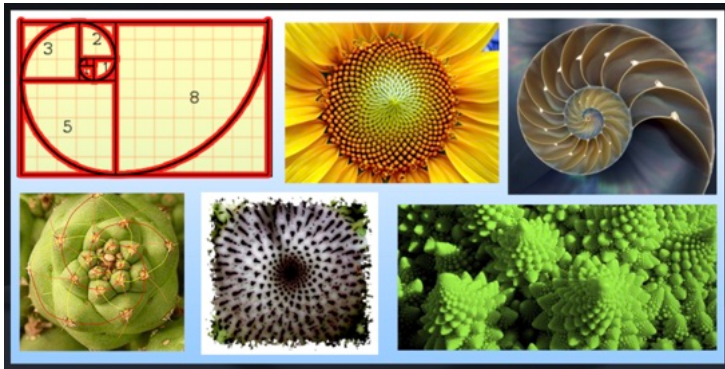
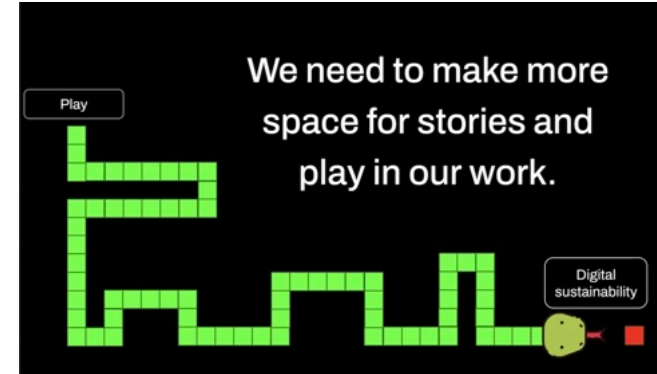
Digital exists to regenerate society

Backwards compatibility forever

We only need one device for life

START AT THE END - HANNAH SMITH

GREEN WEB FOUNDATION



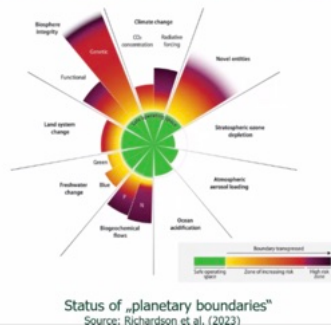
## Acknowledgements

- full Docker container code at : <https://gitlab.com/axello/serverbench>
- java benchmark: Gerard de Leeuw (ColoClue)
- php help: Jelle Luteijn (ColoClue)
- <https://tech.phlux.us/Juice-Sucking-Servers/> (#1, #2, #3)

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## „Green“ - Facets of environmental sustainability



## Two types of environmental effects of digitalisation



Source: Adapted from Berkhout & Hertin (2001) & Erdmann et al. (2004)



## Measures for each layer

- IT Services:** e.g., change default settings for customers to energy-saving modes
- Software:** e.g., use energy-efficient programming languages and prevent hardware obsolescence
- Data centres:** e.g., use environmentally certified data centre operators
- Networks:** e.g., choose efficient and parsimonious transmission networks
- Hardware:** e.g., use refurbished hardware



Here are some links towards “sustainable sw” [https://wiki.techinc.nl/Sustainability#Sustainable\\_Software](https://wiki.techinc.nl/Sustainability#Sustainable_Software)

<https://towardsdatascience.com/what-200-000-years-of-humanity-taught-us-about-data-storytelling-919f0a44215b>

<https://www.sciencedirect.com/science/article/pii/S0921800914000615>

I love the low tech magazine, their server is hosted on solar power and they have done some work to limit how much bandwidth they send. <https://solar.lowtechmagazine.com/>

<https://www.solarprotocol.net>

This is an amazing compilation of articles and sources about internet cultures which collect our stories online and how we use the digital: <https://digitalcontentvalizmakingpublic.net/Stuck-on-the-Platform>

"Liminal Excavations": A zine that explores alternative visions, ideas and critiques on the topic of sustainability and ICT (ICT4S) <https://doi.org/10.21428/57a7f7a7.5d685a20>

Since 2015: this conference's publications - <https://computingwithinlimits.org>

<https://locos.codeberg.page/loco2024/>

Fibonacci Fern <https://flic.kr/p/8aXk1P>

<https://greenio.tech/conference/10/paris-2024-december-green-it>

<https://podcasts.castplus.fm/e/18pk94vn-36-climate-change-challenges-to-data-centers-lessons-from-singapore-with-ps-lee>

<https://anatomyof.ai/>

<https://tech.phlux.us>

<https://www.the-incredible-shrinking-man.net/>

Keep an on our blog - <https://www.thegreenwebfoundation.org/news/>

Benchmark for sustainable software / FOSS Energy Efficiency Project <https://eco.kde.org/handbook/>

<https://berthub.eu/articles/posts/a-2024-plea-for-lean-software/>

<https://www.sciencedirect.com/science/article/abs/pii/S0167642321000022>

Talk from RIPE NCC Open House — [https://www.ripe.net/documents/3860/ripe-ncc-talk-WV-2024-10-02\\_1.pdf](https://www.ripe.net/documents/3860/ripe-ncc-talk-WV-2024-10-02_1.pdf)

<https://www.ripe.net/meetings/open-house/green-tech-and-sustainability-in-internet-technologies-2-oct-2024/>

Vesna's personal stand on AI = [https://wiki.techinc.nl/User:Becha/AI\\_is\\_ecocide](https://wiki.techinc.nl/User:Becha/AI_is_ecocide)