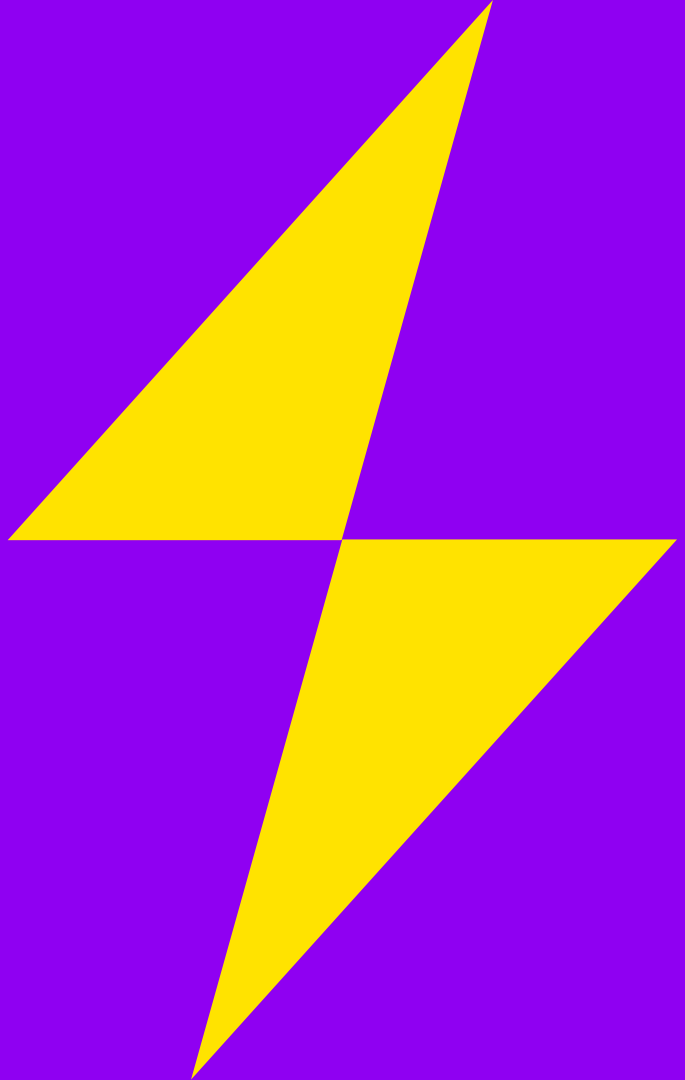

Green IT Procurement

EXOVE

There is no business to be done on a dead planet.

– David Bower

EXOVE

Or how software is eating the Earth alive.

EXOVE

About Myself

Janne Kalliola, Chief Growth Officer and founder of Exove

Have been coding since 1983

Now focusing on growth of Exove

Working with green coding and carbon neutrality for a few years now

Chairman of Board of Code from Finland and initiator of Carbon Neutral Software Company label

linkedin.com/in/jannekalliola/

Defrustrating the Digital

Exove is a design and software development company that combines analytical and technological expertise with understanding of humans. We focus on creating digital solutions that fight against digital frustration.

EXOVE. a REBL company

110
Experts

Revenue
9m€

Founded
2006

100+
Clients

Offices
6

Helsinki + Oulu + Tampere + Lahti + Jyväskylä + Tallinn

Climate crisis costs the world **12% in GDP for every 1°C** temperature rise.[1)]

[1)] The Macroeconomic Impact of Climate Change: Global vs. Local Temperature

EXOVE

The ICT sector accounts for **4–10%** of the world's energy consumption[1)] and **2.1–3.9%** of greenhouse emissions[2)].

The numbers are growing.

[1)] Ministry of Transport and Communications: Climate and environmental strategy for the ICT sector.

[2)] The real climate and transformative impact of ICT: A critique of estimates, trends, and regulations

3.0% of global carbon emissions[1)] =

1,580,000,000 tons

Every year.

[1)] Global emissions 58.2Gt from UN Emissions Gap Report 2022

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For the sake of perspective, this is about the mass of **all land mammals and people**.[1)]

[1)] https://energyeducation.ca/encyclopedia/Gigatonne

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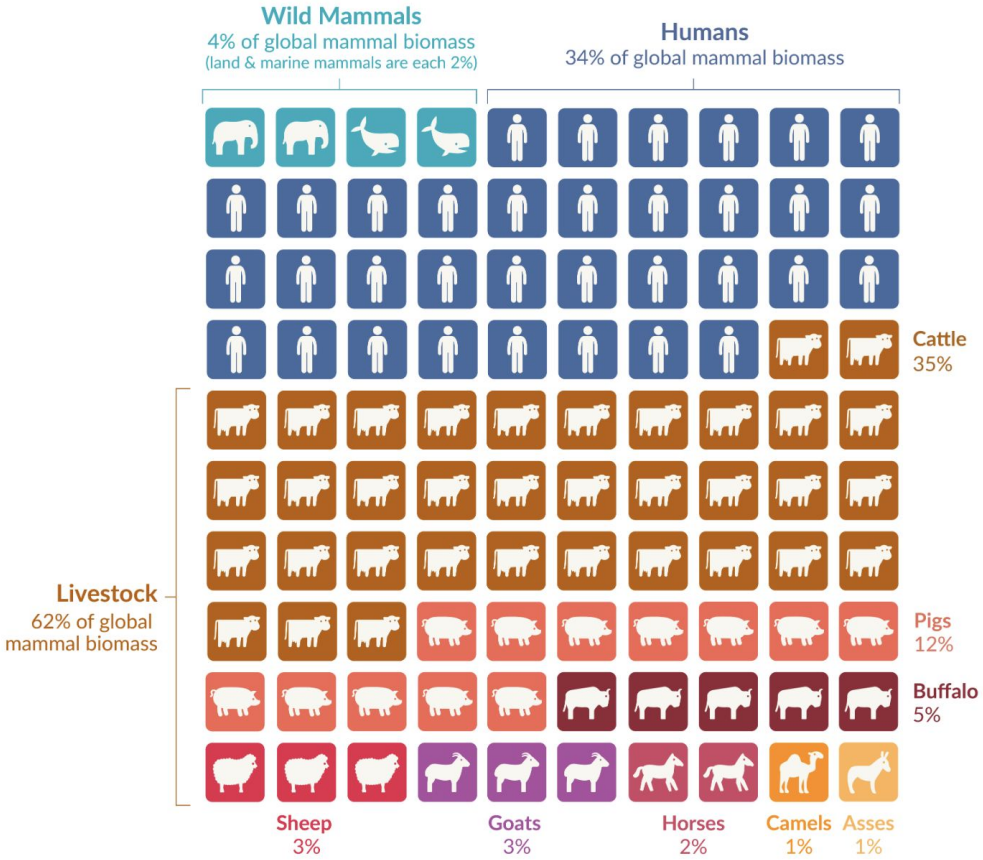
Also, do note this.[1)]



[1)] https://ourworldindata.org/wild-mammals-birds-biomass

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And worst of all, these numbers are before the AI boom.

We need to do better!

EXOVE

The issue is how we see our software environment.

EXOVE

Cornucopian (horn of plenty) paradigm[1)]

[1)] Understanding and Mitigating the Effects of Device and Cloud Service Design Decisions on the Environmental Footprint of Digital Infrastructure,

1. The Moore’s law will be valid forever.

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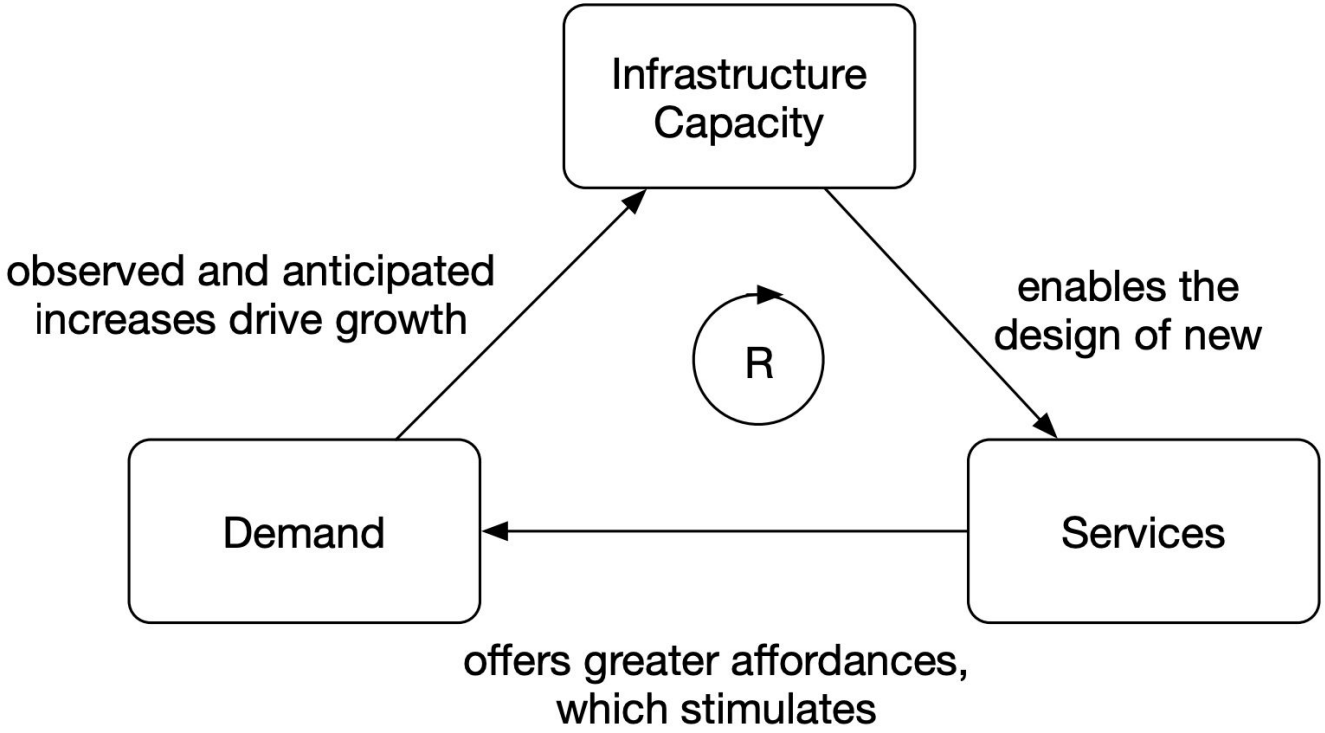
2. The cloud provides infinite scalability.

EXOVE



[1] Understanding and Mitigating the Effects of Device and Cloud Service Design Decisions on the Environmental Footprint of Digital Infrastructure,

We must break free of this vicious cycle. **Or it will suck our planet dry.**

EXOVE

Procurement!

Use the golden rule.

EXOVE

Whoever holds the gold makes the rules.

EXOVE

But how?

EXOVE

Energy Consumption and Emissions

Understand your current position ⇨ do homework

Define targets and plans to reduce

Require calculations of energy consumption and emissions from vendors

- Both embedded and operational figures

N.B. using “green” energy is not enough

Scope 3 is the main scope that needs to be understood the best

EXOVE

Longer Lifecycles

Again, understand your position by having all devices in a database and under control

Prolong IT device lifecycles by purchasing / leasing devices that can be used at least for a decade

Consider using refurbished devices, make this alternative luring to the employees

Require software vendors to take obsolescence into account and have plans to mitigate it

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Greener Software

Require more energy efficient software solutions

Include sustainability and energy efficiency as a procurement criteria

Build best practices that fit your company’s situation and needs

Work together with your vendors, do not just burden them with extra tasks

Focus on most impactful matters – the most used software, the heaviest software

EXOVE

Greener AI and Data

1. Check whether AI is truly necessary.
2. Define how AI usage is constrained – maximise value, minimise impact.
3. Find the most suitable AI model. Procure it from a carbon-efficient source.
4. Take AI training energy consumption into account.
5. Measure energy consumption.

1. Collect only data that you actually need and has value.
2. Consider whether it is ok to wait for new data to accumulate instead of collecting it for the sake of certainty.
3. Store only derived information instead the raw data, if possible.
4. Remove data that is no longer used, archive it, or make time series out of it.

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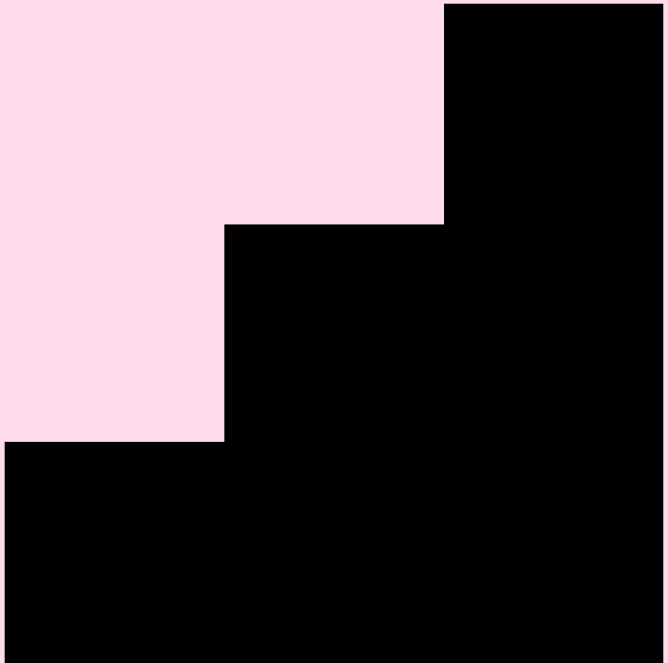

Final Words

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This is a journey.
Do not expect everything to be fixed immediately.


The most important thing in starting a journey is to take the first step.

exove.com/fi/vihrea-koodi

exove.com/green-code

Questions? Comments?

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