

THE CLIMATE PUZZLE

A TOOL FOR PLANNING 1.5-DEGREE LIFESTYLES

JARI KOLEHMAINEN, D-MAT LTD.



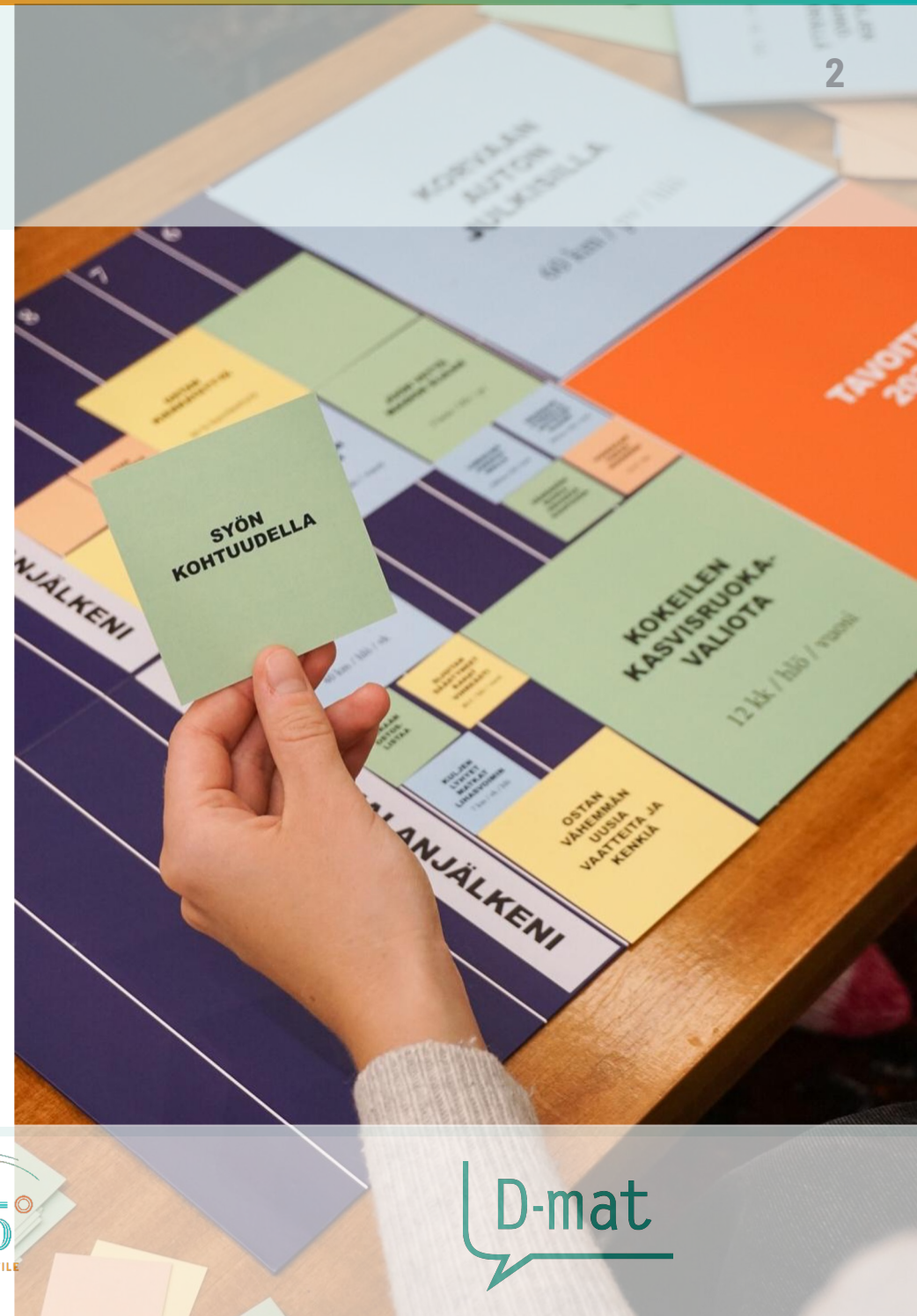
Dieses Projekt wird durch das Forschungs-und Innovationsprogramm Horizon 2020 der Europäischen Union gefördert (Fördernummer 101003880).

5th of July 2023, ISIE 2023
Leiden, Netherlands



THE CLIMATE PUZZLE

- The climate puzzle is a diverse planning and educational game based on scientific research.
 - Illustrates to the individual, what the targets of the Paris agreement mean from the perspective of lifestyles.
 - Provides answers to common questions about sustainable lifestyles.
- In the Climate Puzzle,
 - You get to know your carbon footprint in relation to the 2030 goal, which is 2,5 tons.
 - You choose actions, that help you reduce your carbon footprint to the desired level.



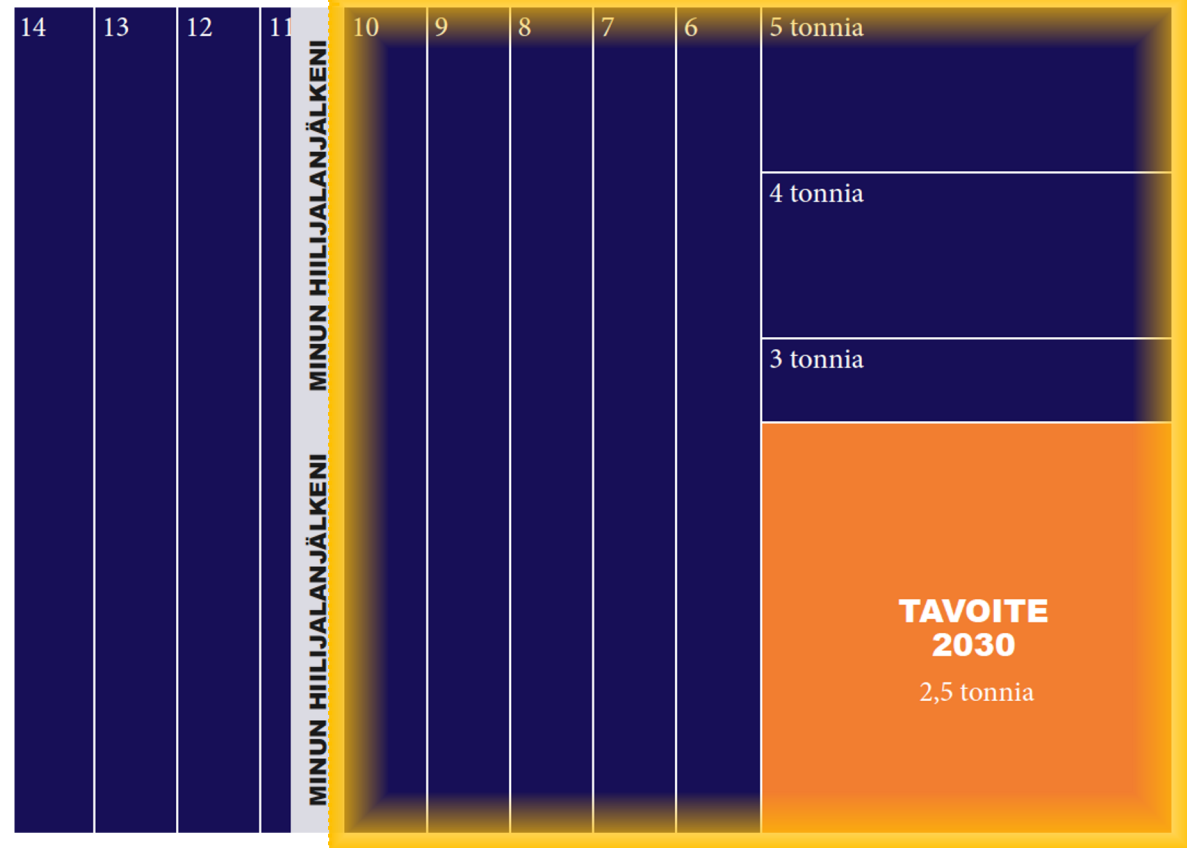
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THE EXPERIENCE: INTUITIVE COMPREHENSION

The player's carbon footprint

Physical size

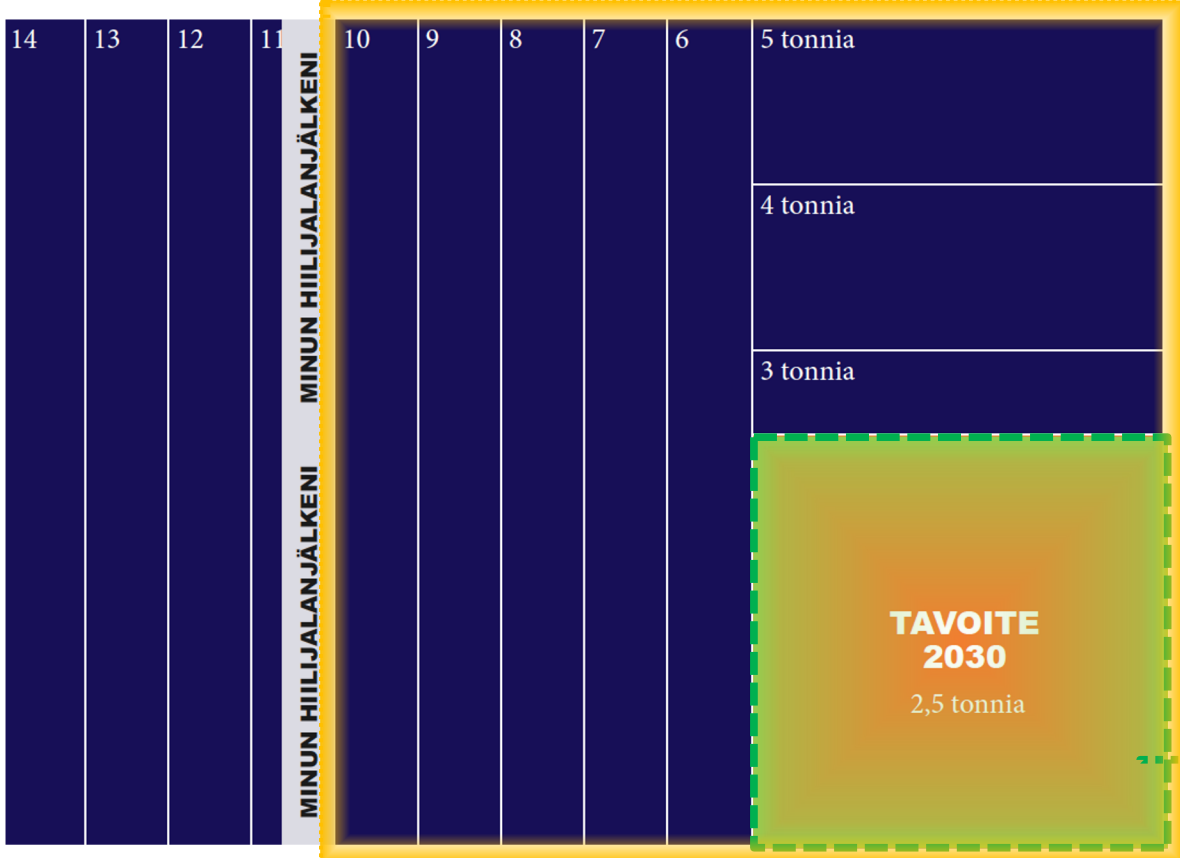
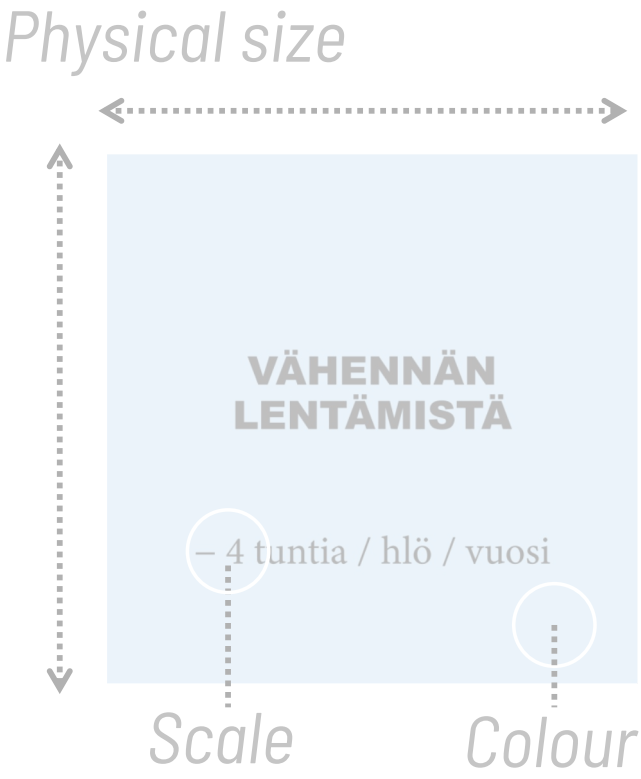


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The sustainable portion (=target)



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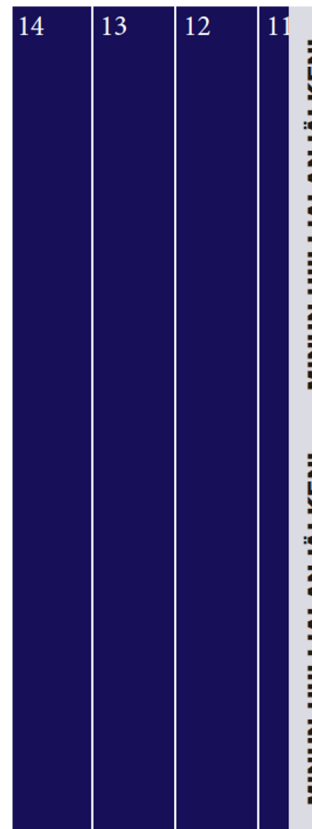


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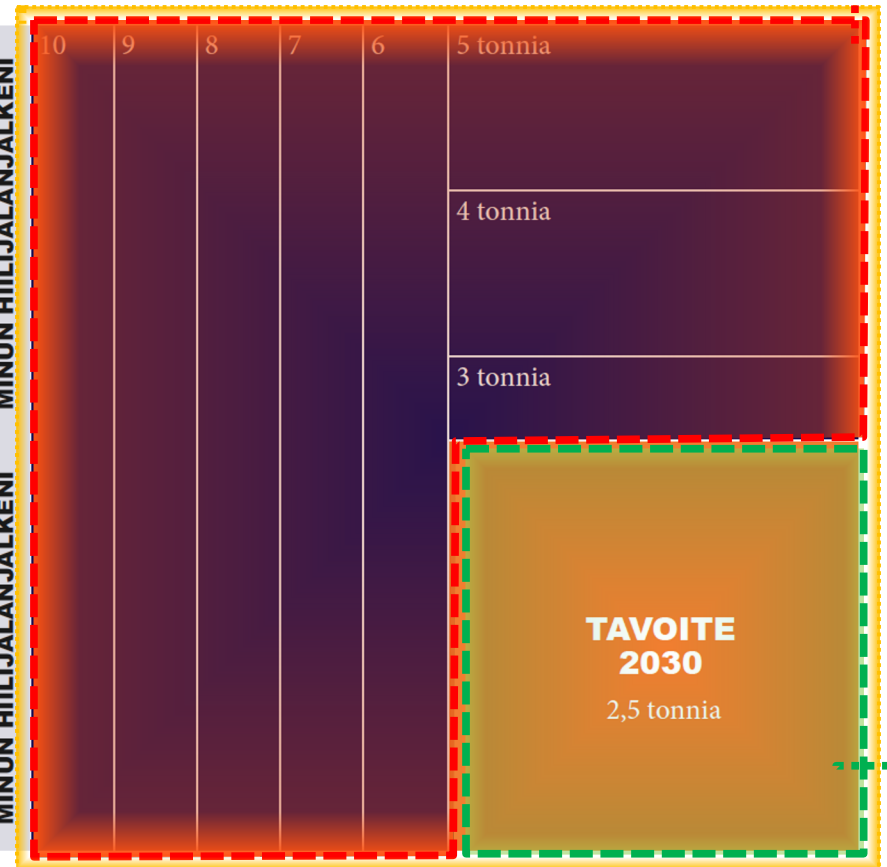
Physical size



The player's carbon footprint



The excess footprint



The sustainable portion (=target)



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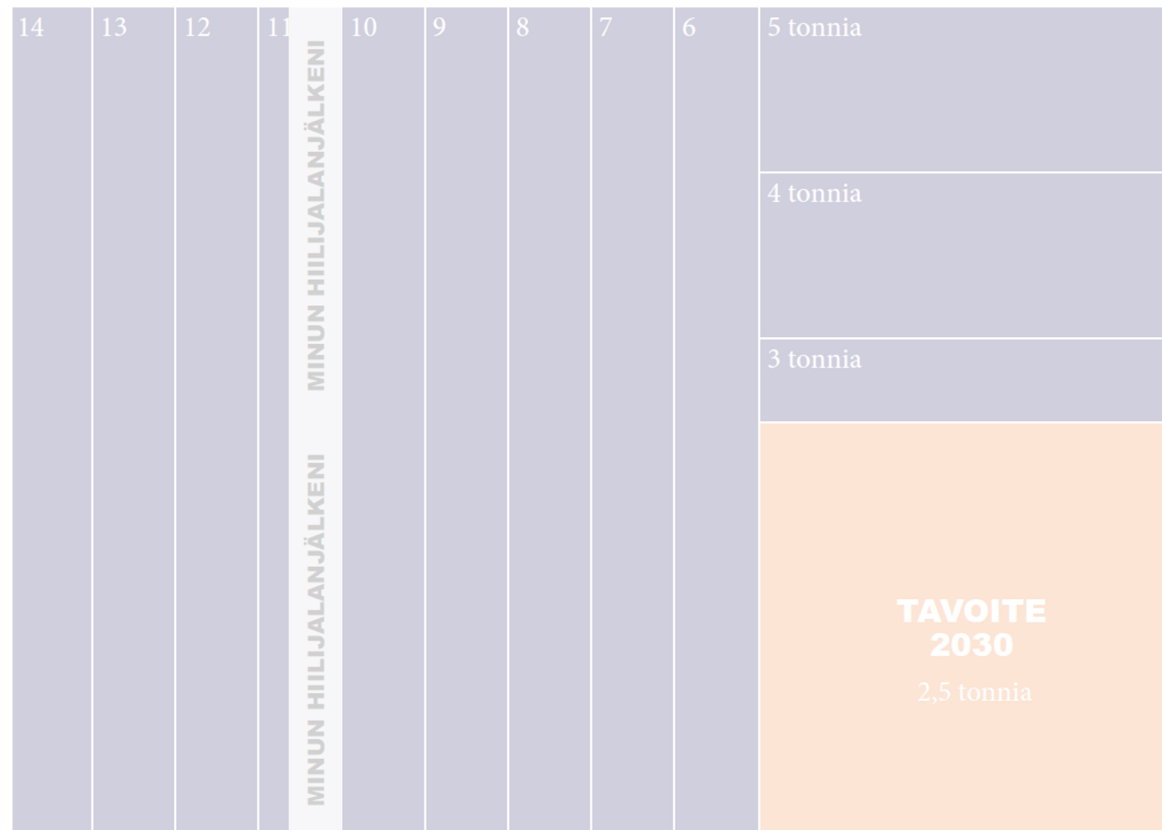
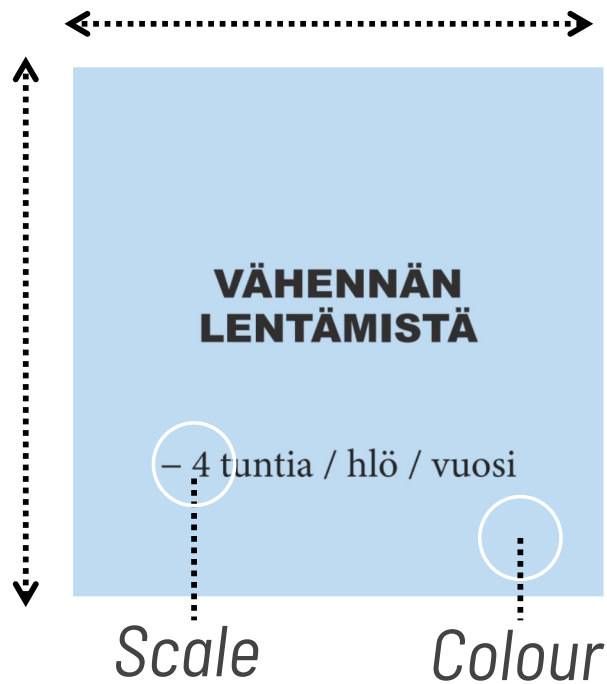


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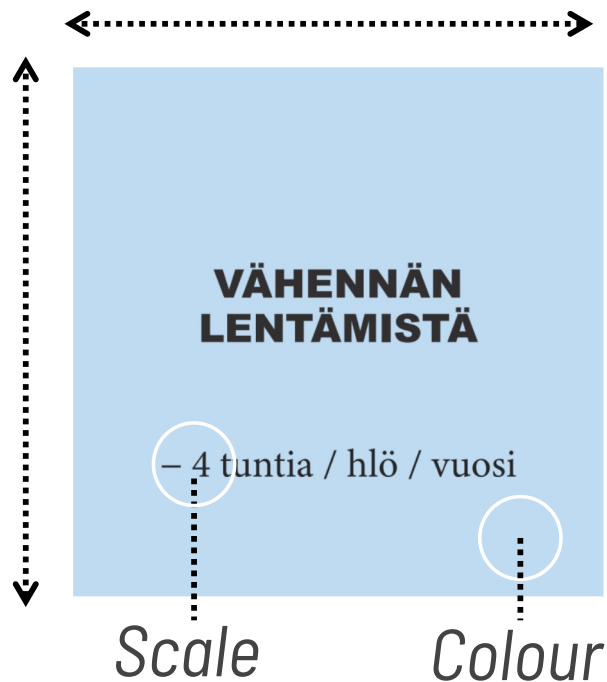


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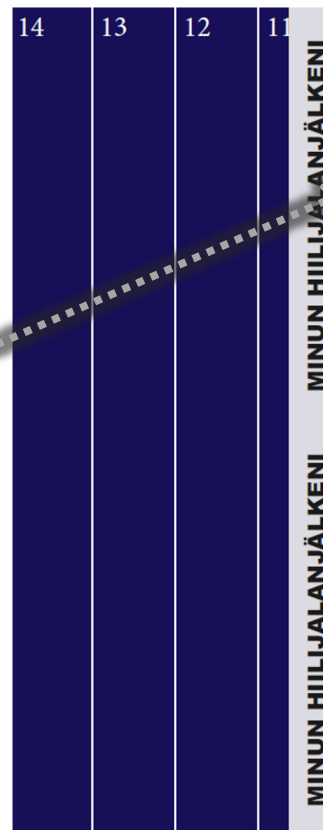


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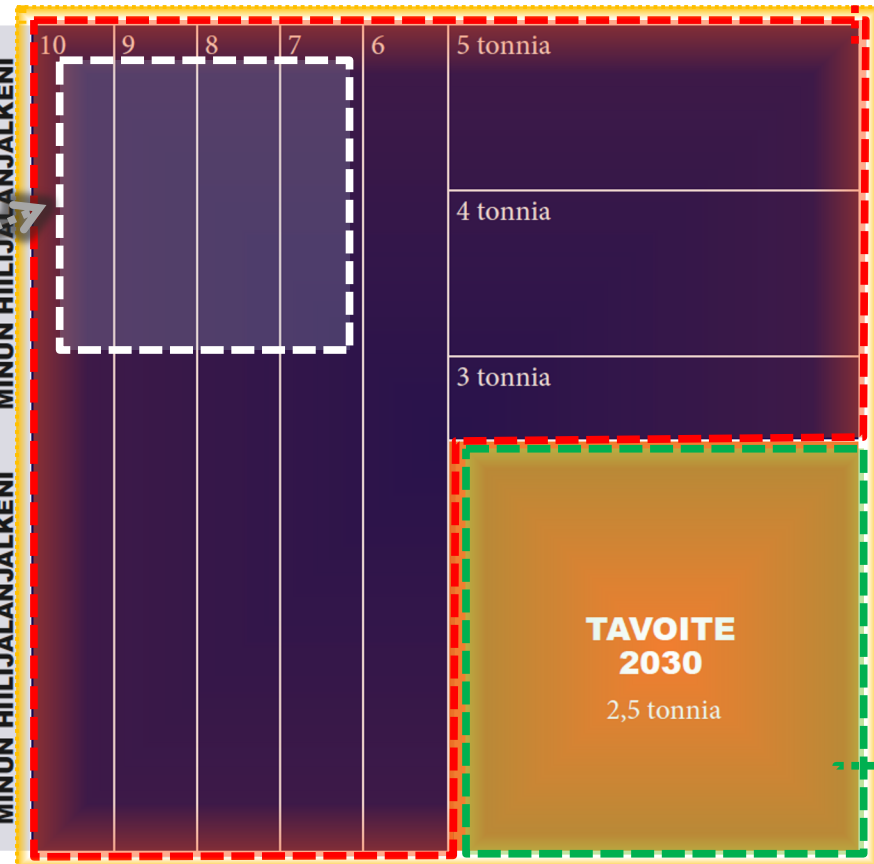
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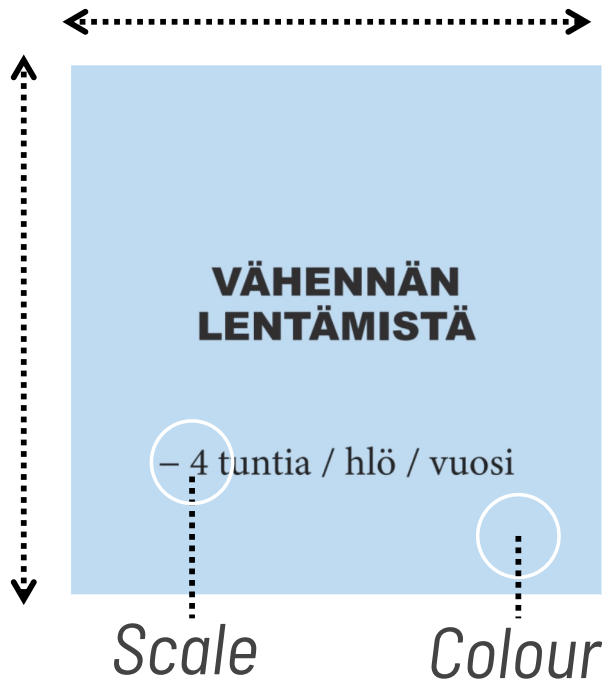


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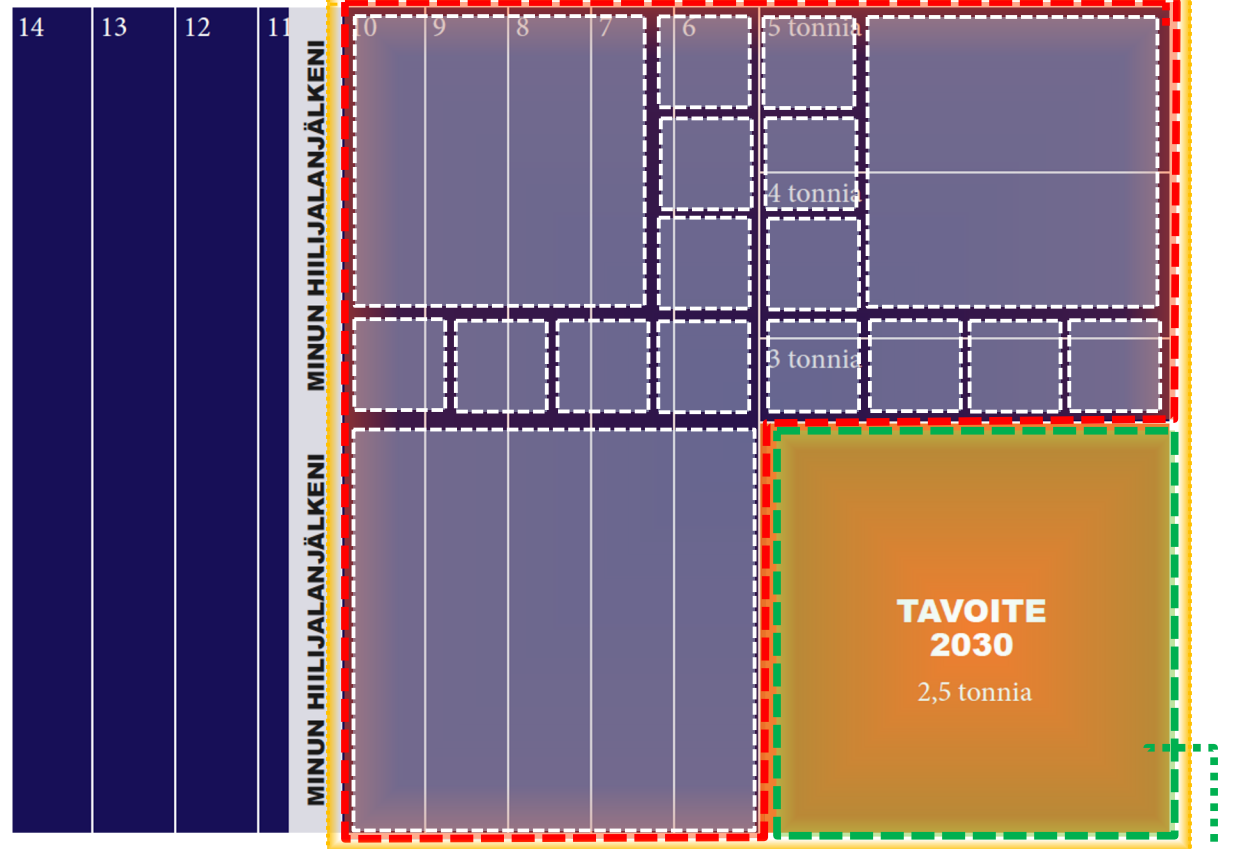
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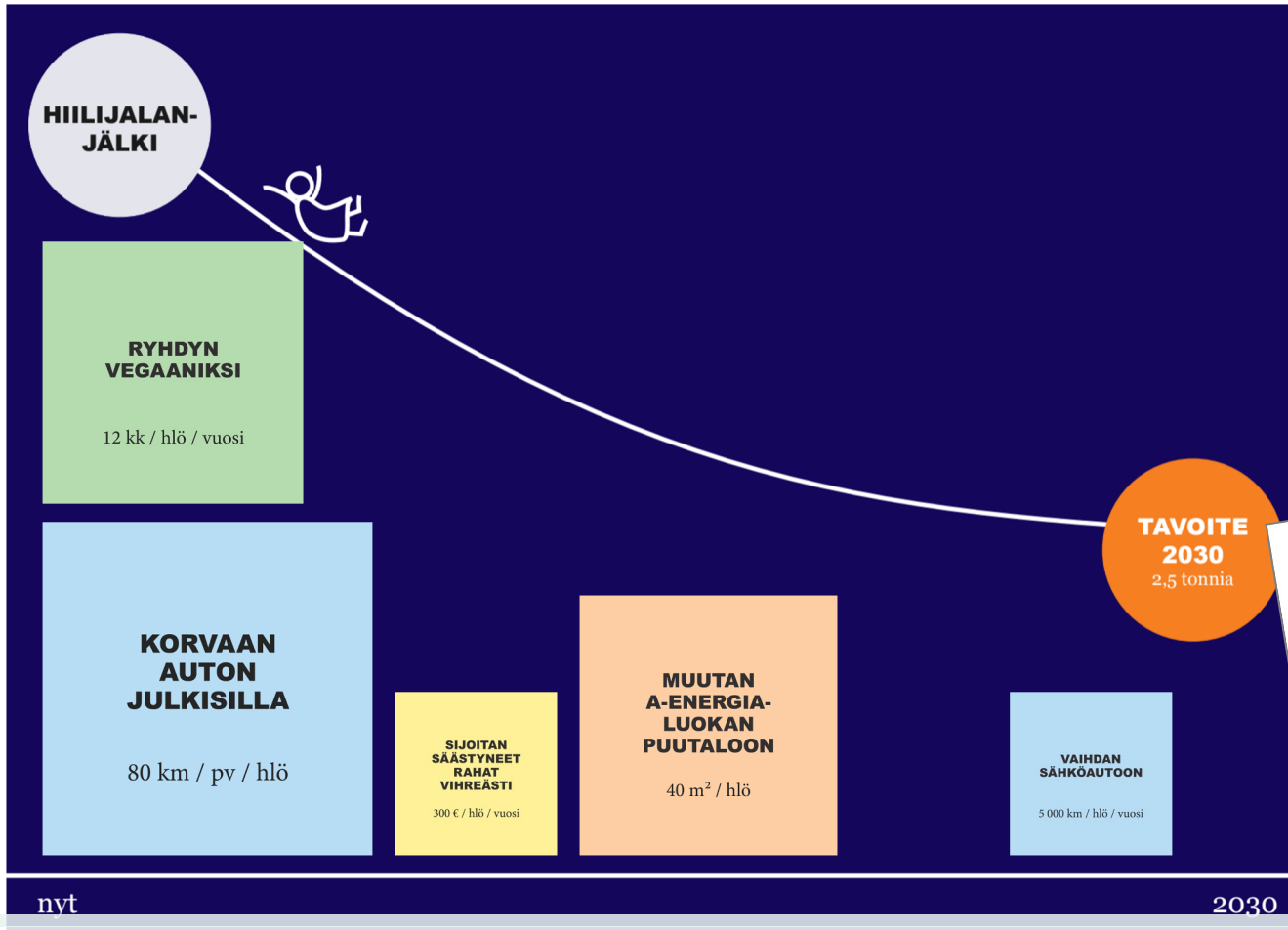


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THE EXPERIENCE: INTUITIVE COMPREHENSION

Later in the game



Valitse 1-3 tekoa, joita haluat kokeilla ensimmäiseksi.

Kirjaa ylös tekojen nimet ja kuinka suuri jalanjälkivähennys niistä syntyy.



Valitse 1-3 tekoa, joiden toteuttaminen tuntuu erityisen haastavalta tai joita et voi toteuttaa heti.

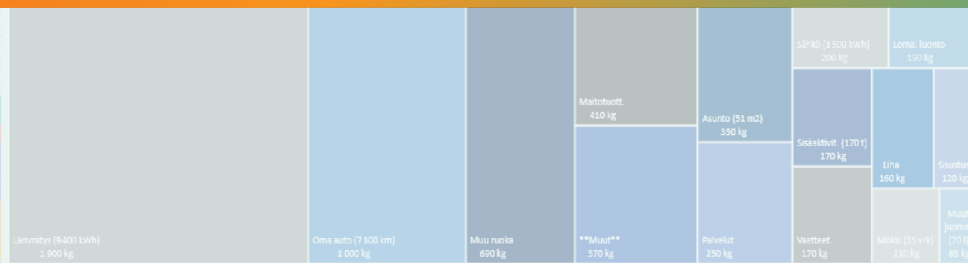
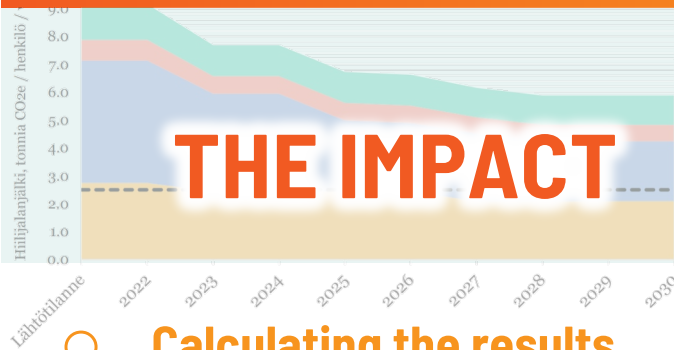
Käy valitsemasi teot läpi yksi kerrallaan.

Pohdi, miksi teon toteuttaminen tuntuu haastavalta.



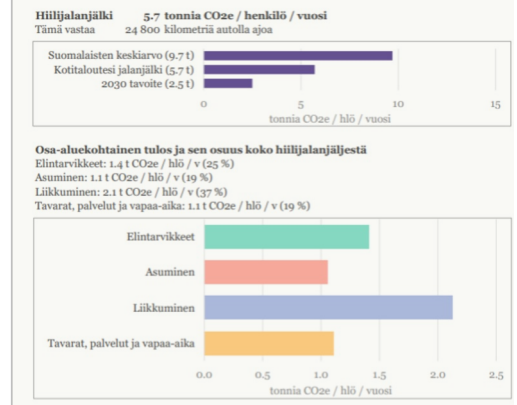
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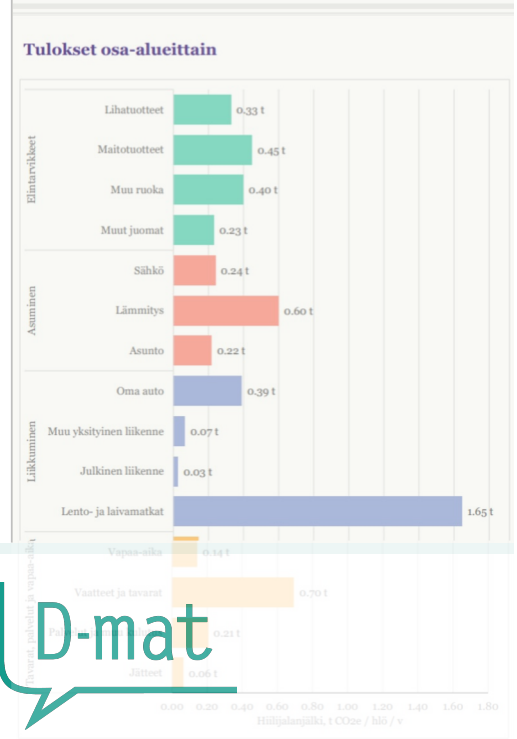


- **Calculating the results**
 - Any lifestyle carbon footprint calculator is basically suitable to play the game.
 - Using D-mat's own, survey-based calculator, it's possible to assess the chosen options' impact in individual circumstances.
 - The options are based on bottom-up *amount x intensity* approach.

- **After the Puzzle,**
 - The players typically achieve ca. 50 % reduction of their original footprint by 2030.
 - If the setting includes *experimentation period*, typically 10 % of actual (report-based) reduction is achieved during the 1-3 month period.
 - In longer studies, *hard evidence* (measurable game-related footprint reduction) is difficult to establish, as circumstances vary in surprisingly rapid pace.
 - However, *soft evidence* like increased awareness is regularly observed.



Hiilijalanjälki (HJ) kertoo elämäntavan ilmastovaikutuksen eli kuinka paljon elämäntavasta yhteensä syntyy kasvihuonekaasupäästöjä. Sen yksikkö on hiilidioksidiekvivalentti (CO₂e).



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WHERE TO PLAY

- **The Climate Puzzle has found use in**
 - *Sustainable Lifestyles Accelerators*
 - *Scientific studies*
 - *Workshops, citizen thinking labs*
 - *Schools*
 - *Libraries*
 - *Other countries*

- **Additionally,**
the Climate Puzzle has been the inspiration for a similar EU 1,5 Lifestyles game concept, although more scientifically focused, using a consistent top-down calculation approach.

- **Got an excellent idea to utilize the Puzzle in your country?**
We're open for discussion and ready to adapt for different countries. Just ask after the session! 🙌



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CHALLENGES: *WHAT WOULD YOU SUGGEST?* 🖐️

& OTHER QUESTIONS, COMMENTS AND DISCUSSION

- **Value-action gap**
 - E.g. flying to a conference while aware of its huge climate burden.
 - So uncomfortable that one easily reasons it away, like *“the conference is for climate, so THIS flight is actually beneficial”*.
- **Getting the message through**
 - No university or NGO can arrange a workshop for every citizen. People must find the Puzzle or other inspiration via more traditional routes.
- **Taking the Puzzle Online**
 - Frequently asked for.
 - Several discussion, a couple of attempts, but still no comparable online experience available.



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MANY THANKS FOR YOUR ATTENTION

We look forward to your additional questions, comments and suggestions!

Reach us via email:

Jari Kolehmainen: jari@d-mat.fi

Michael Lettenmeier: michael@d-mat.fi



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