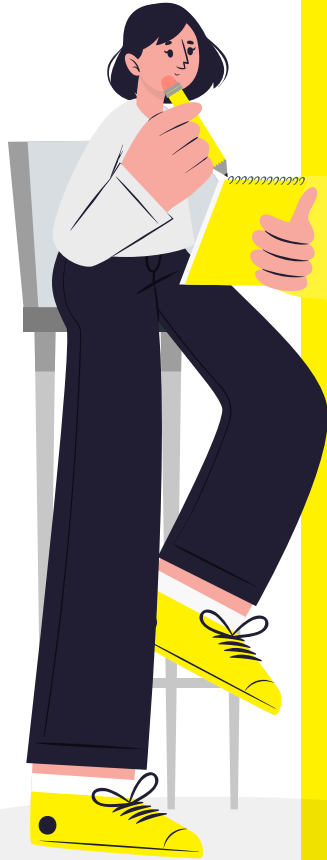


Team 9

Digitalization and AI in practice - TEK830



# SceneGen

Marketing Mockup Generator for IKEA



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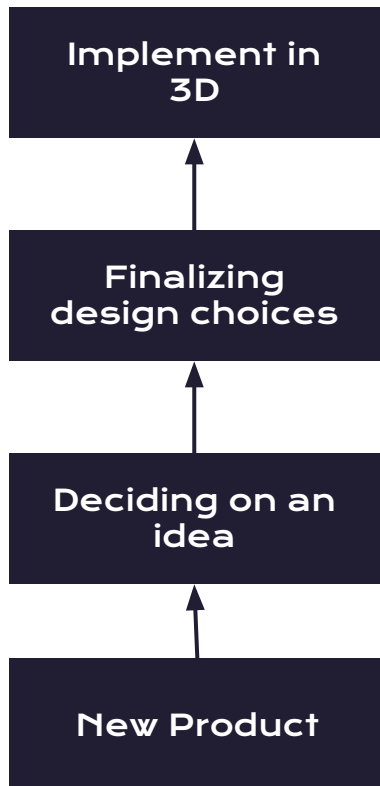
**“Idea  
Generation  
is hard”**

- Scene designer at IKEA

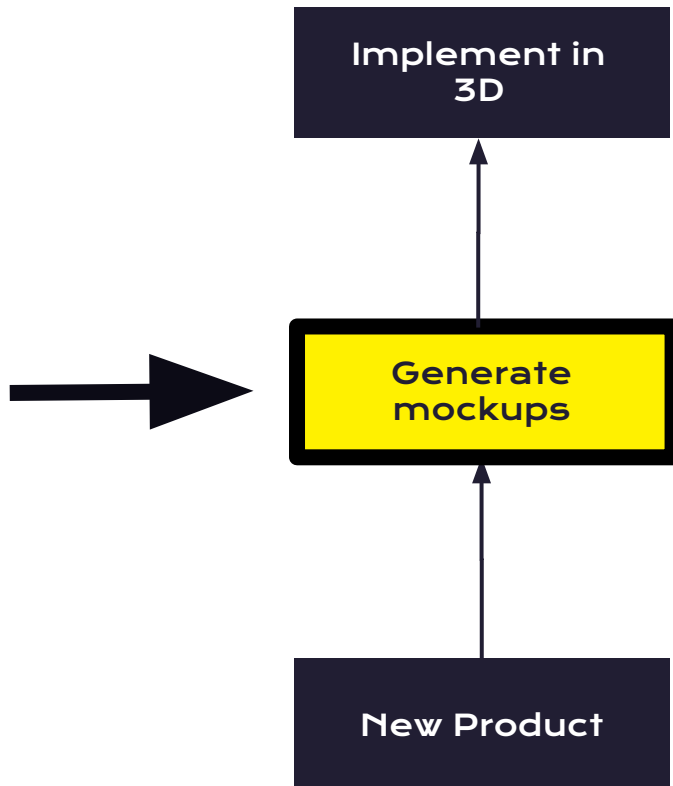


# Workflow

## Current workflow

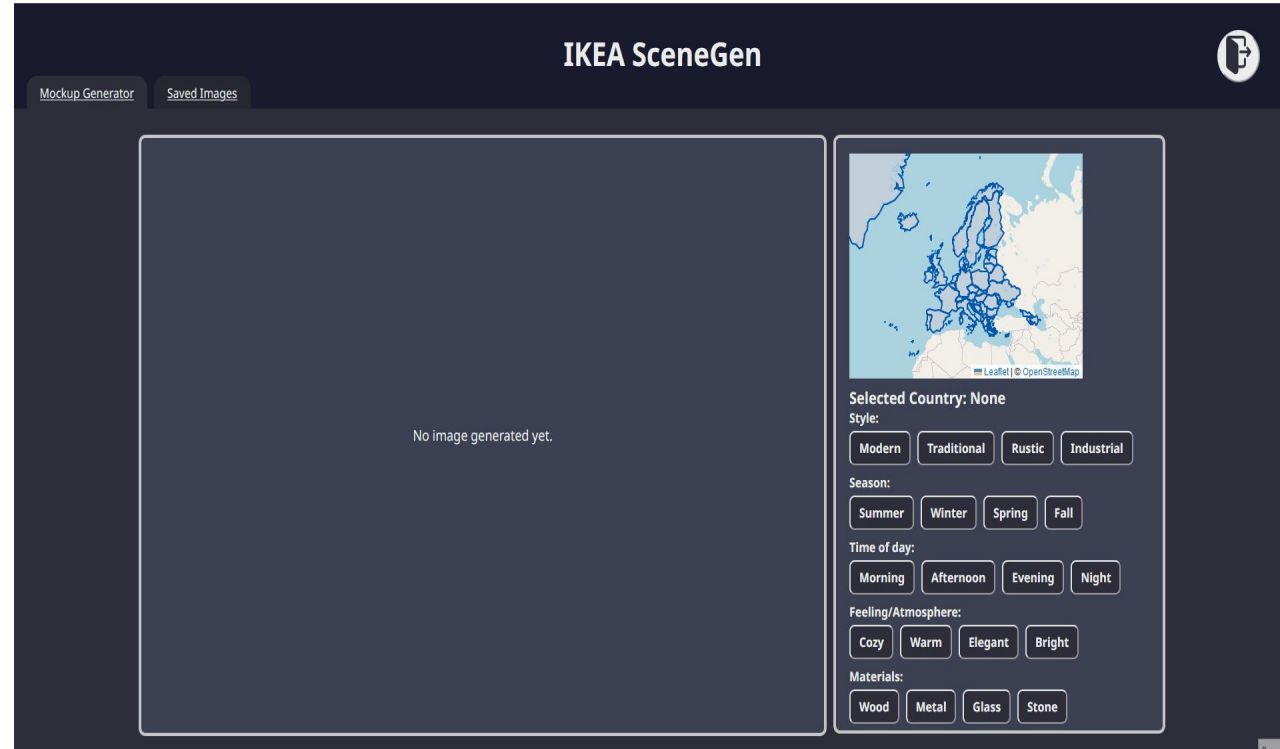


## SceneGen Workflow



Creating a mockup of:

- “A kitchen for the **Swedish market**,
- aimed at **families** in a **modern style**
- which exudes a **warm** feeling while being set in a **winter setting**.
- parts of the kitchen to be made out of **wood and stone**.
- The image should be as if its **taken eye level**”




# Personal repository of mockups

IKEA SceneGen

Mockup Generator

Saved Images

No image generated yet.

A map of Europe with a blue outline, showing the continent's shape and major landmasses. The map is credited to Leaflet and OpenStreetMap.

Selected Country: None

Style:

ModernTraditionalRusticIndustrial

Season:

SummerWinterSpringFall

Time of day:

MorningAfternoonEveningNight

Feeling/Atmosphere:

CozyWarmElegantBright

Materials:

WoodMetalGlassStone

Intended Audience:

FamilySingle PersonCouplesStudents

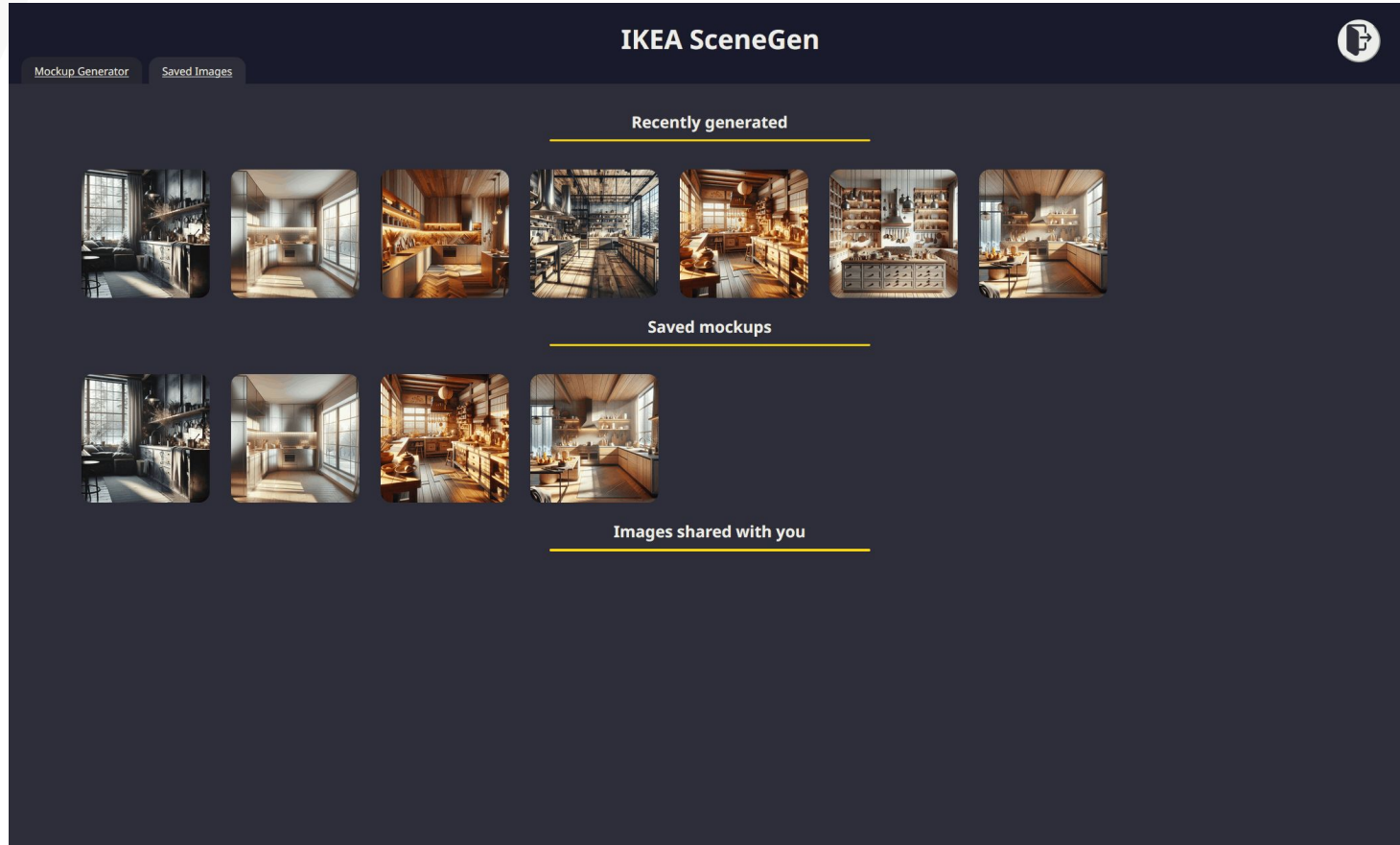
Point of View:

From AboveEye LevelSide View

Corner View

The logo is a circular emblem. It features a central gear with a compass needle pointing upwards. The words "UNIVERSITY OF ADVANCING TECHNOLOGY" are written in a circular path around the gear. At the bottom of the emblem, the year "1829" is inscribed.

# Share images with your fellow IKEA colleagues



Is it sustainable

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## IKEA:s Vision

Our solution helps lower costs

## AI-Training

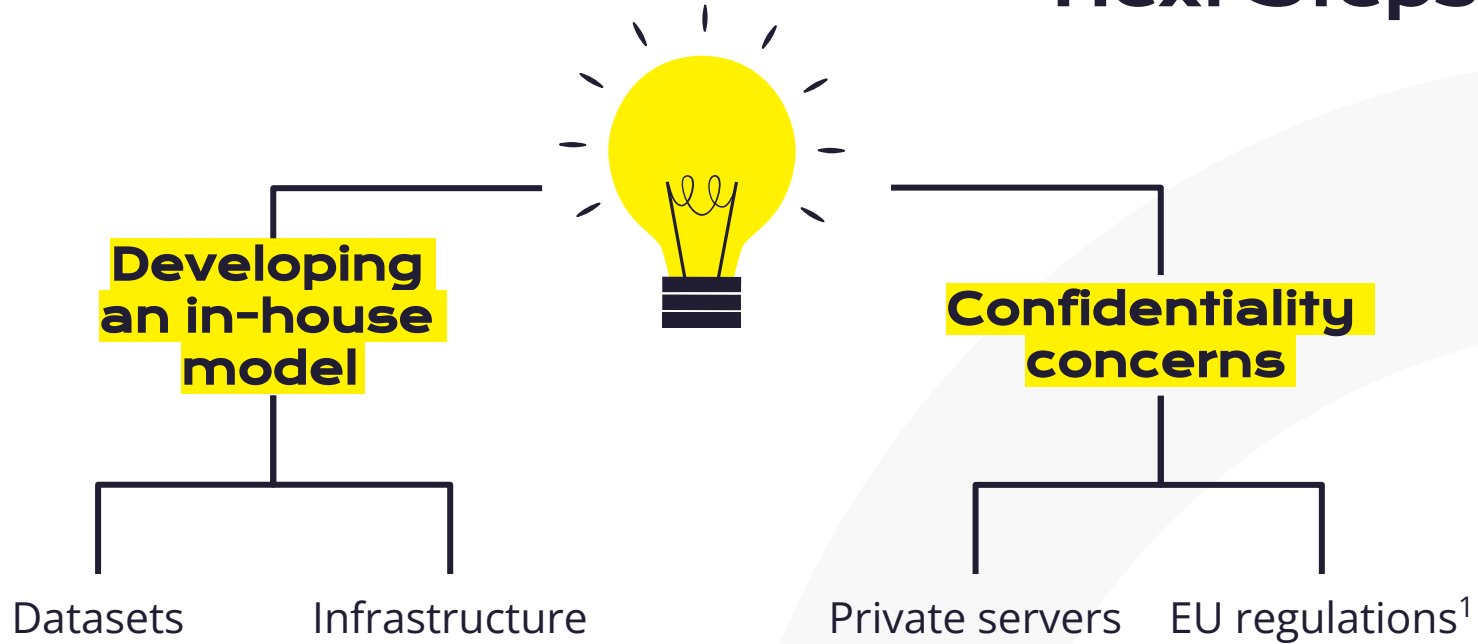
Sustainability issue? Not in the long term

Training a model takes at least 500.000kW/h<sup>2</sup> comparable to one 7 hour flight<sup>2</sup> and costs will be spread among users

Image generation cost is 0.011 kW/h as compared to the 0.7-1kW/h draw of a modern computer<sup>3</sup>



# Next Steps





# **Conclusion**

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- **Our AI solution complements IKEA**
- **Offers a scalable and sustainable way to stay ahead in the European market**
- **Ensures alignment with trends and seasonal changes.**



# Thank you for listening!

Digitalization and AI in practice - TEK830

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## Checkout our website!



1. [Unfair commercial practices and price indication from the Consumer Protection Law under EU](#)
2. [Energy footprint of training an AI model: https://cacm.acm.org/blogcacm/the-energy-footprint-of-humans-and-large-language-models/](https://cacm.acm.org/blogcacm/the-energy-footprint-of-humans-and-large-language-models/)
3. [Power Hungry Processing: https://arxiv.org/pdf/2311.16863](https://arxiv.org/pdf/2311.16863)



## Costs

Our current application has quite low costs to maintain, OpenAI's DALL-E model which we use to generate the images, has a low and fixed cost per each request, the only additional cost is for hosting the website. A potential additional cost is if it's decided to fine-tune the model with data from IKEA directly or for hardware to run a model locally.