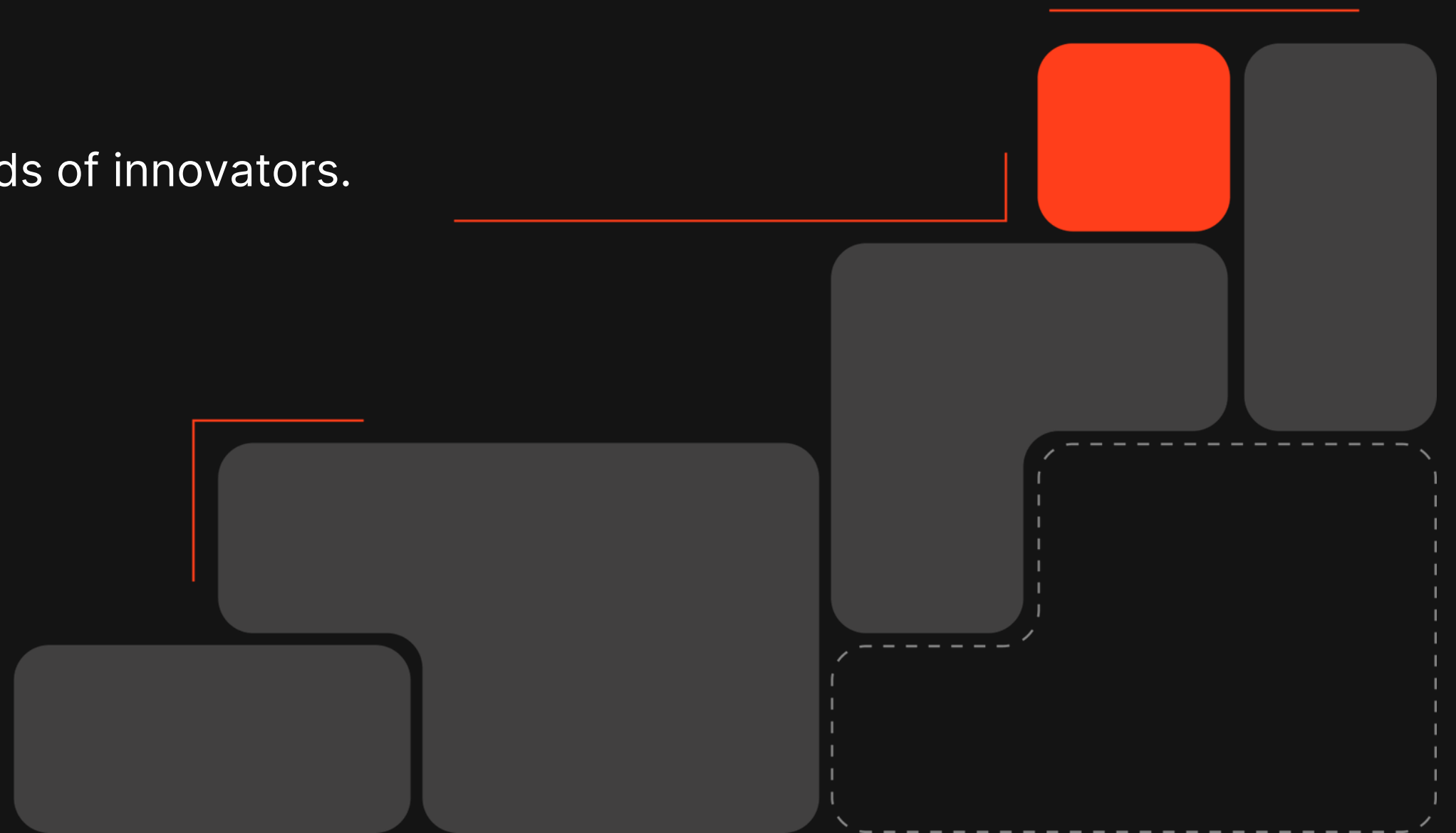# ENABLE EDGE AI PRODUCTS YOU DREAM OF

Simply bringing the power of chips into the hands of innovators.
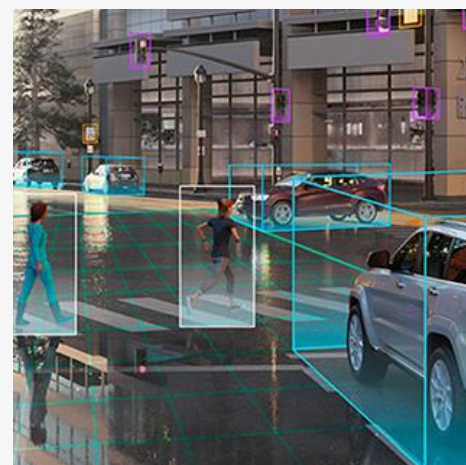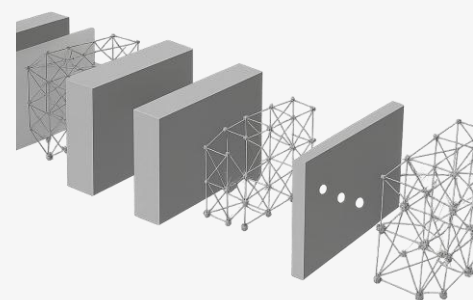
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BUILDING EDGE AI PRODUCTS IS STILL PAINFUL

Proof of concept

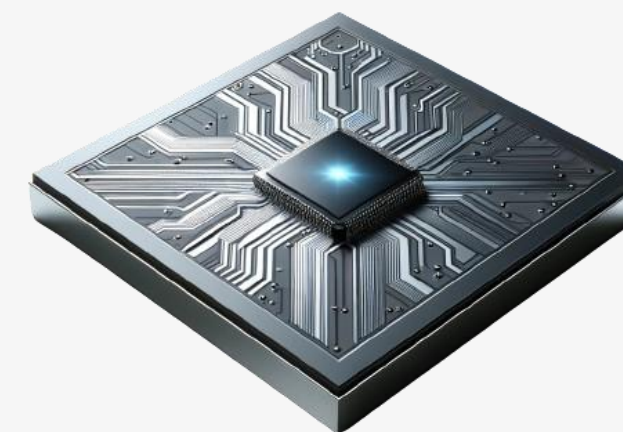Trained ML model

⏱ 3-6 months

"My model is not supported."
"My model is too slow."
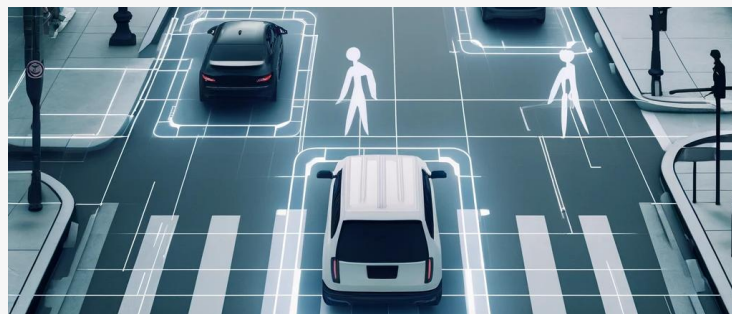"How does the deployment work?"

Edge AI product

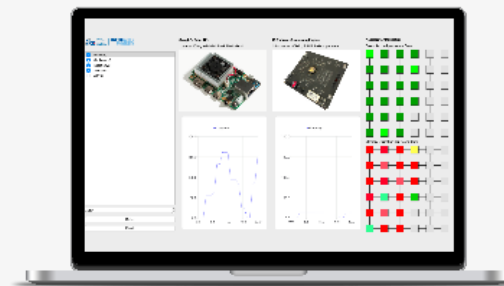Diverse, complex, and heterogeneous chips

WE ENABLE CHIPS TO EFFICIENTLY RUN ANY MODEL

Any model

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Software development kit (SDK)

Flexible   Efficient   Easy

Target hardware

AN ADAPTIVE AND RETARGETABLE SDK BASED ON NEXT-GEN AI COMPILER TECHNOLOGY

Any model

Any framework

...

Any model

CNN   RNN
Transformers
...

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Software development kit (SDK)

attic

The one-stop AI application layer.

Any network, any framework!

cellar

The one-stop AI hardware layer.

CPU, GPU, NPU - you name it!

Target hardware

Any CPU/MPU/MCU

arm   x86   RISC-V

Any GPU

AMD   NVIDIA   SPIR

AI accelerators

Under development
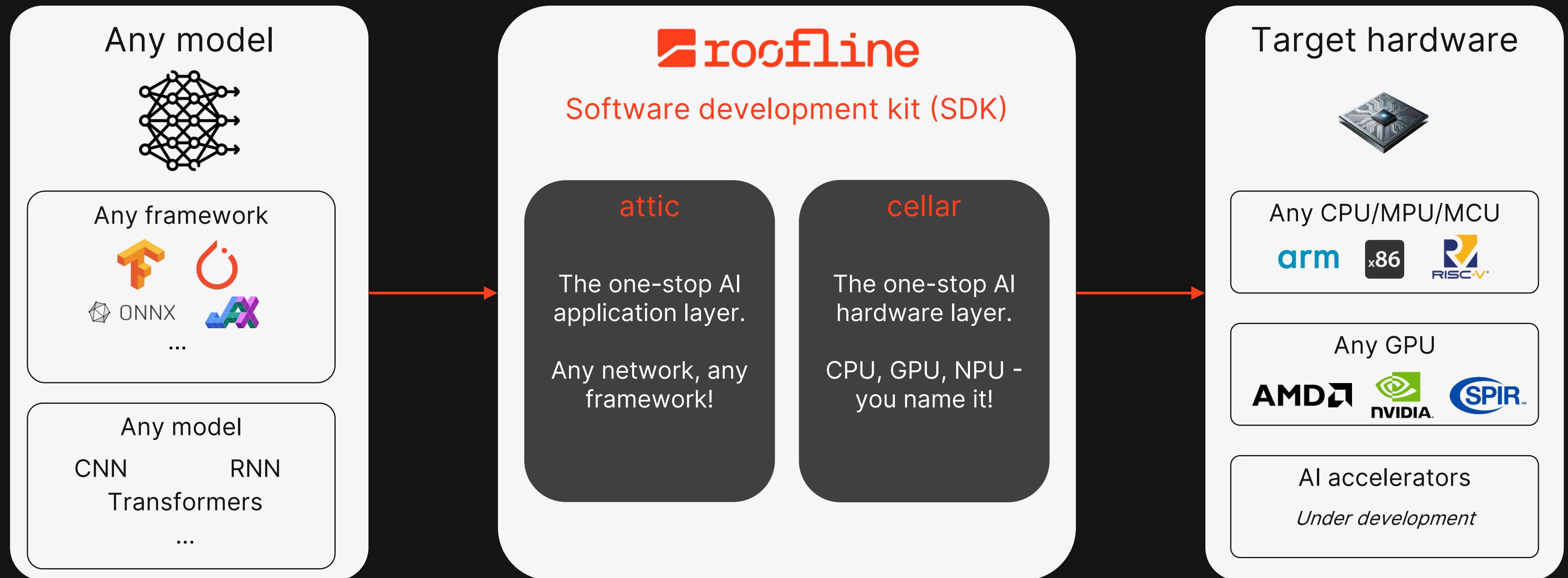
WE HAVE DAY-0 SUPPORT FOR NOVEL, MULTIMODAL LLMS

deepseek janus-pro-1b

- Multimodal model supporting text-to-text as well as image-to-text and text-to-image

- Not supported by llama.cpp – bug report has been open for ~2 months

- We could run the model out of the box

- We achieve ca. 8x improved latency vs TorchInductor

Find the demo here (link)

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```
ziereis@4090 ~/r/roof-mlir (03-12-rooflm_part8_entry_and_docs)> rooflm generate janus_f16.vmfb --token]
izer-id="deepseek-ai/Janus-Pro-1B" --protocol=roofqx --prompt="My favorite color is orange because " -
-stream --max-new-tokens=100 2> /dev/null
Python version is above 3.10, patching the collections module.
Running warmup...
```

TorchInductor

```
ziereis@4090 ~/r/roof-mlir (03-12-rooflm_part8_entry_and_docs)> rooflm generate "deepseek-ai/Janus-Pro]
-1B" --tokenizer-id="deepseek-ai/Janus-Pro-1B" --protocol=torch --prompt="My favorite color is orange
because " --stream --max-new-tokens=100 2> /dev/null
Python version is above 3.10, patching the collections module.
Running warmup...
Generating text for prompt: My favorite color is orange because
My favorite color is orange because
```

Please note: janus-pro-1b f16 running on AMD Ryzen 9 7950X

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WE BRING THE EXPERTISE TO ENABLE YOUR AI DEPLOYMENT

Founded by AI compiler and AI system engineers from RWTH Aachen University.

Built around a core team of ex-AMD engineers, researchers and strategists.

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CEO
Dr.-Ing. Moritz Joseph

joseph@roofline.ai

www.roofline.ai

CTO
Max Bartel

bartel@roofline.ai

CFO & COO
Dr. Thomas Zimmermann

zimmermann@roofline.ai

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