

# Magnetic memory in electronics of the future

Aarhus University researchers are starting a major European research project. The aim is to develop new technology for the electronics of the future.

With a European Union (EU) grant of more than DKK 25 million, researchers will develop a completely new technology for the computer chips of the future.

The technology is expected to lead to radical new opportunities for storing data and thereby designing computers with very efficient and fast memories in magnetic layers.

"Today, we already have magnetic memory on a chip. This is very promising for energy efficient computing, as no power is required to retain the data. However, writing the data electronically still requires a high energy. Recent research shows that short laser pulses can be used to write data in magnetic layers at much lower energy and much higher speed. Our aim is to use this idea to create a novel optically switched magnetic memory on chip," says Associate Professor Martijn Heck.

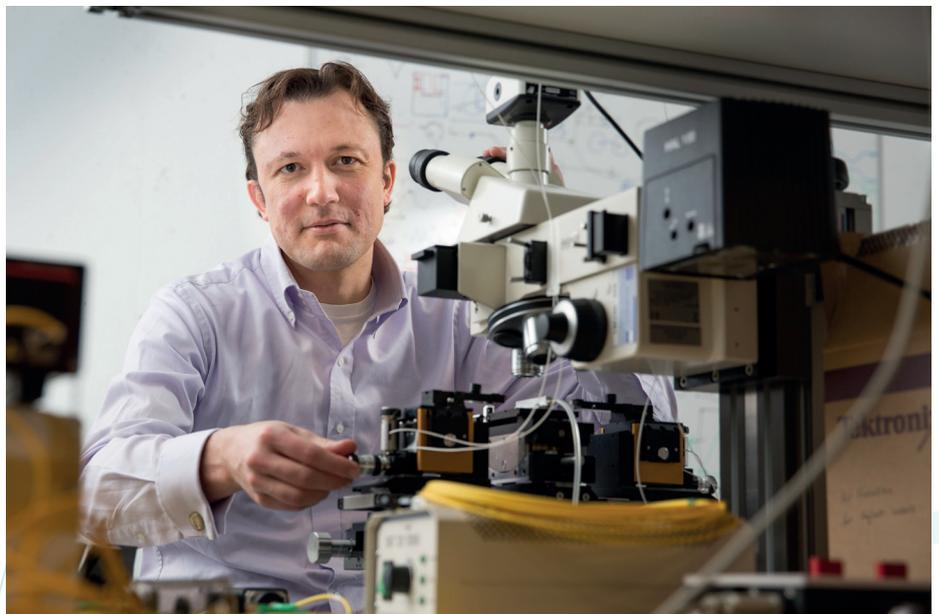
## **Pioneer research in computer technology**

The grant is the prestigious Future and Emerging Technologies (FET) actions under Horizon 2020 – the EU Framework Programme for Research and Innovation.

FET actions only support pioneer research in ground-breaking new lines of technology that can boost Europe's global competitive advantage.

"The grant helps to put the seal of approval on Aarhus University as an important player in the elite engineering universities. We hope to create new knowledge that can benefit the

technological advancement in Europe," says Martijn Heck.



*In the coming years, researchers will develop new technology that can accommodate the world's growing need for computers that are even smaller, faster and more energy-efficient. With a prestigious research grant, they will establish a completely new technological foundation for the electronics of the future.*

*Photo: Associate Professor Martijn Heck*