

# From academic toolkit to globally used quantum software: PennyLane and Catalyst integrate the Munich Quantum Toolkit (MQT)

📅 27 February 2026

News Quantum Software

*An example of successful transfer work in the MQV ecosystem – and of how software from Munich is having a global impact.*



Quantum computing requires not only new hardware, but also powerful software. This is precisely where the Munich Quantum Toolkit (MQT) plays a central role: It was developed at the Technical University of Munich (TUM) and, together with the MQV start-up Munich Quantum Software Company MQSC, expanded into a modular, scalable toolbox for the development and optimization of quantum programs.

And this software is being integrated by more and more players. The latest example: MQT has been integrated into the PennyLane software framework and the Catalyst compiler from the Canadian company Xanadu. PennyLane users now

have access to MQT's advanced optimization, verification, and compilation functions with just one line of code, without having to adapt their existing workflow.

The integration exemplifies how the Munich Quantum Valley ecosystem works: Academic results from TUM are transferred to an industrial, globally used context via MQV start-ups such as MQSC, thereby strengthening Europe's role in the global quantum software stack.

Find the open-source MQT toolbox [here](#).

Find the complete press release [here](#).