There are a number of long-dormant and seemingly inactive volcanoes in the Earth that could pose a potential threat. The ability of such volcanoes to become reawakened depends primarily on the state of the magmatic plumbing system. Existence of a melt-bearing magma body beneath the volcano and evidence for its prolonged lifetime and intermittent rapid remobilization in the past could mean a potential that the volcano might be active again. Thus, it can be classified as volcano with Potentially Active Magma Storage. We present here an example for such a PAMS volcano from eastern-central Europe. The late Pleistocene dacitic Ciomadul erupted last time 32 ka, but a magnetotelluric survey indicated a low electric resistivity values in the depth interval of 5-25 km, just beneath the volcanic centres. This can be interpreted as implying a partially melted zone, containing about 5-15% melt fraction. This is consistent with the seismic tomography model that indicates a low-velocity zone at the same depth and with CO₂-rich gas emanations having elevated He isotope ratio. A detailed petrologic study revealed that in the past a silicic crystal mush body resided at 7-14 km depth and was rapidly reactivated by major reheating (about 200°C temperature increase) due to the arrival of hot mafic magma. The wide range of U-Th model ages of the studied zircons indicates prolonged existence of the low-temperature silicic crystal mush beneath the volcano. Crystallization of zircons within the crustal magma chamber started >100 ka before the onset of the volcanic activity. The volcanic history suggests that the melt-bearing crystal mush was rapidly remobilized even after a protracted (several 10’s of ka) lull in volcanism to trigger successive eruptions in a comparatively short time window.