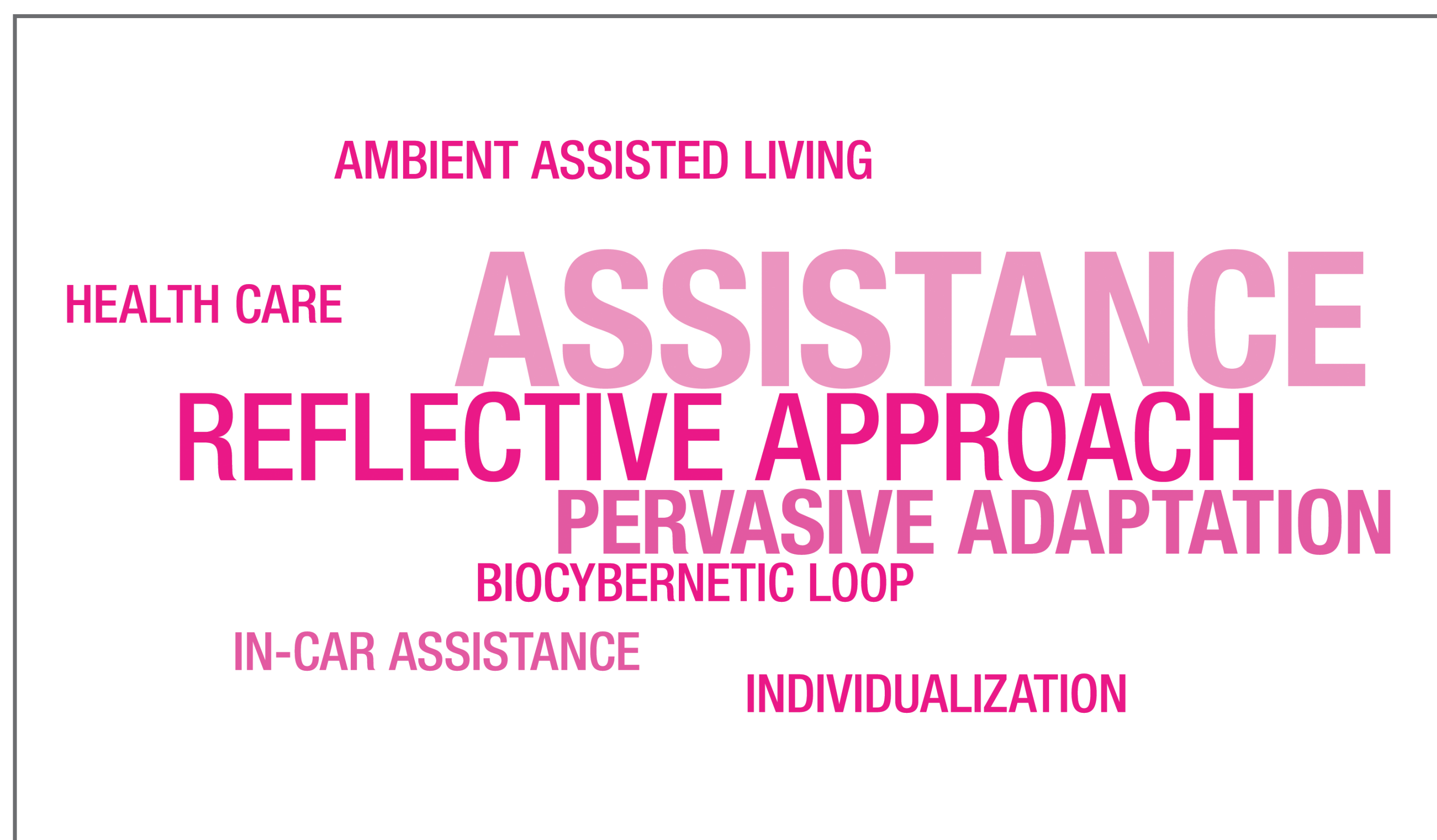
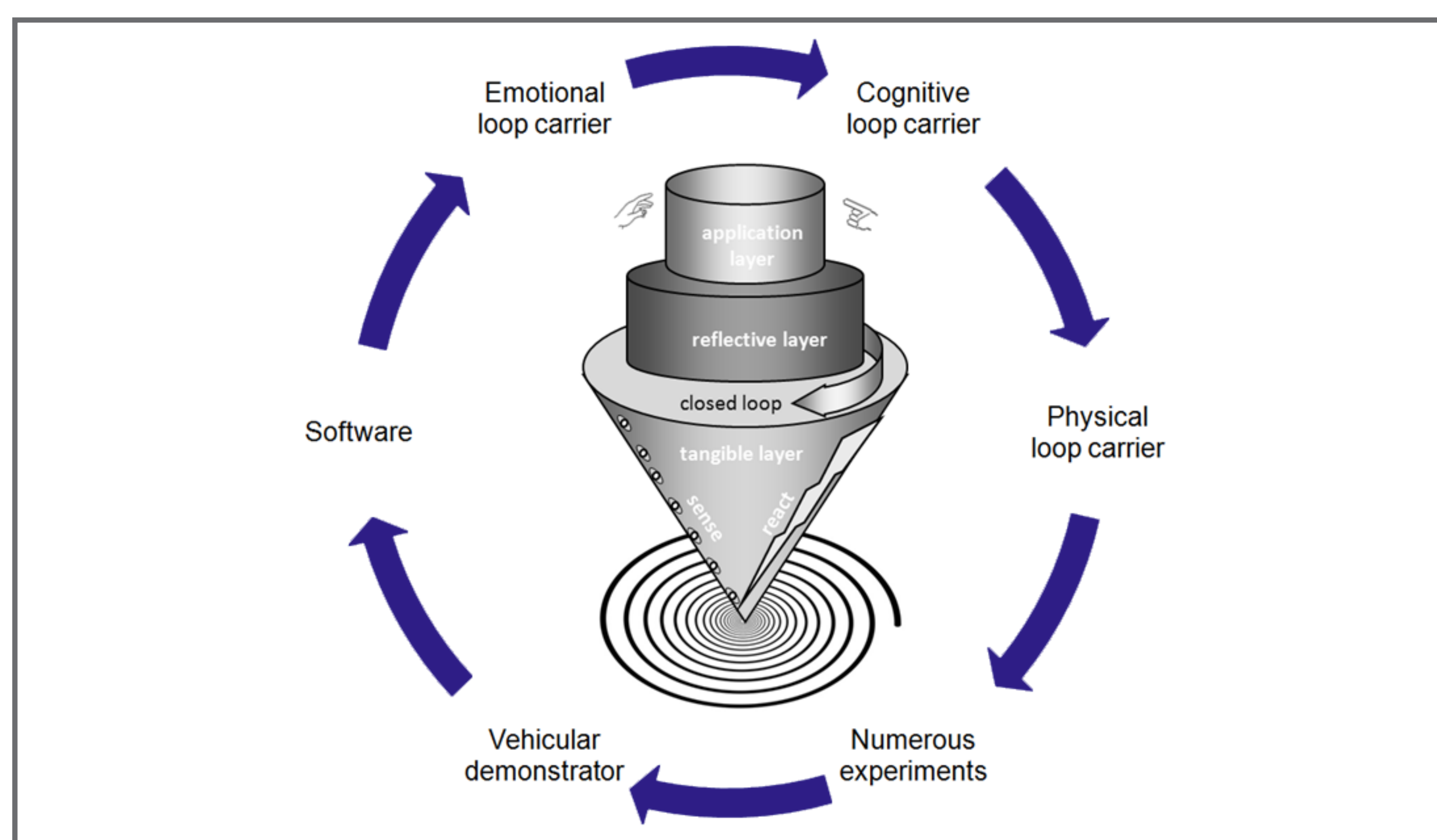


Reflective Assistance

PERVASIVE ADAPTIVE SYSTEMS IN REAL-LIFE COMPUTING



Reflective Computing. Reflective systems are smart systems that monitor, diagnose and respond to the affective, mental and bodily states in a closed loop manner. The goal of reflective assistance is to observe people in a real-life situation, diagnose their psychological and behavioral state and influence the ambient accordingly.



Implementation. Reflective systems are implemented by a service- and component oriented dynamic and reactive middleware that runs multiple biocybernetic loops featuring pervasive adaptation. The software architecture is structured into tangible, reflective and application layers that are metaphorically illustrated as a spin top.



Practical use. The reflective approach has been tested in different practical settings insuring emotional, cognitive, physical and situational response. A reflective vehicle illustrates the approach by enriching the car with numerous sensor devices and board computers that observe the driver, actively assisting in the driving process.

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PerAda
towards pervasive adaptation

