Anja Palmans obtained a degree in chemical engineering (1992) at the TU Eindhoven, The Netherlands. She continued with a PhD on the topic of supramolecular chemistry (1997) in the group of Prof. E.W. Meijer, followed by a postdoc in the group of Prof. P. Smith at the ETH Zürich (Switzerland) on polarizing energy transfer in photoluminescent polymer films. In 1999, she started working at DSM Research (The Netherlands) in the field of enzymes and materials, and was appointed as assistant professor at the TU Eindhoven in 2005, and associate professor in 2010. Since 2019 she holds the chair in Supramolecular Chemistry and Catalysis at the Department of Chemical Engineering and Chemistry at the TU Eindhoven. She has co-authored over 140 papers and review articles in international journals, and contributed to several book chapters.

Her research interests are two fold. On the one hand, she explores the fascinating field of single-chain polymeric nanoparticles (SCPNs) for bio-orthogonal catalysis in complex media. The synthesis, folding, and application of SCPNs as compartmentalised sensors/catalysts in water has been intensively studied be her. Currently, these systems are applied as active and selective catalysts in water, and in complex, cellular media. The dream is to apply catalytically active SCPNs as an alternative manner to activate prodrugs for chemotherapeutics and to augment natural biosynthetic pathways with non-natural catalytic reactions with the aim to reduce the number of steps in the synthesis of complex molecules. On the other hand, the fundamentals of supramolecular polymerisations and copolymerisations are addressed. Whereas the reactivity of a vinyl monomer determines the (covalent) copolymer's primary structure and thereby the mechanical and thermal properties of the formed copolymers, the sequence, properties, and function of supramolecular copolymers can, in theory, also be controlled by the molecular structure of supramolecular monomers. However, unravelling the relation between molecular structure, cooperative polymerization, and the microstructure of a dynamic polymer is not trivial, and a major challenge that is currently addressed.