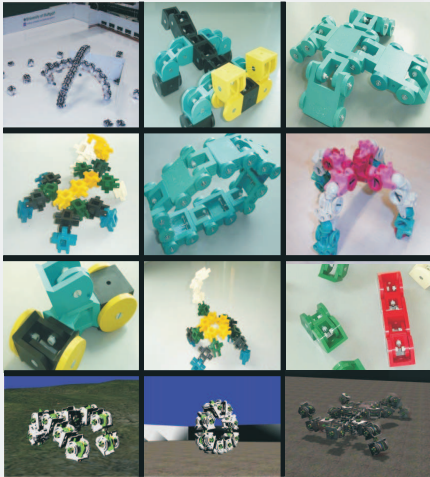# Robotic Evolutionary Self-Programming and Self-Assembling Organisms

Serge Kernbach, Eugen Meister, Florian Schlachter, Olga Kernbach, Fabio Caparrelli, Stephen McKibbin, Anne van Rossum and Paul Levi
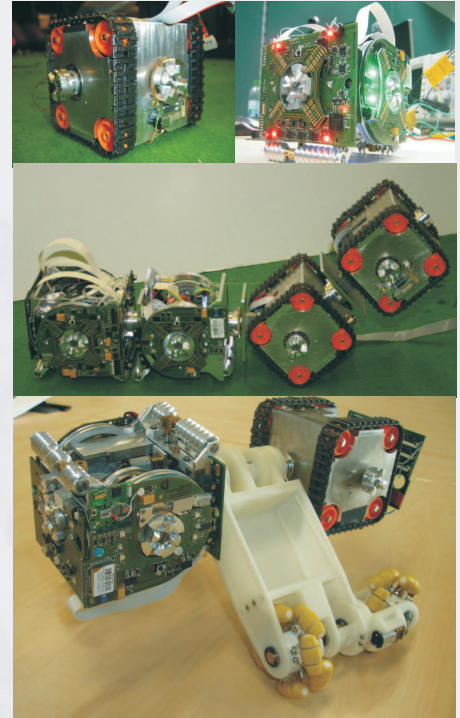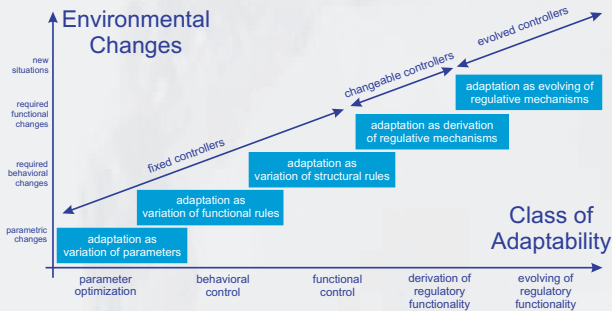
Embodied Cognition

bio-inspired

reconfigurable

adaptive

collective

cooperative

fully autonomous

energy management

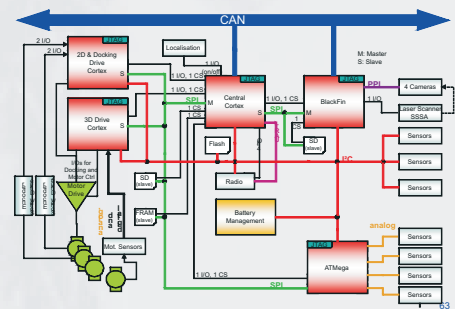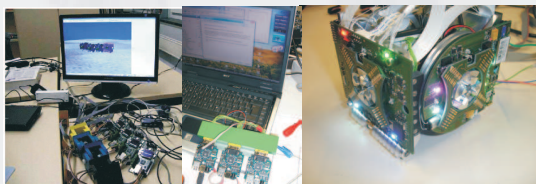power sharing

learning

Reconfigurable Robot Platform

Adaptivity

On- and Off- board Evolving and Learning

Application in human-less environments:

- new vision of a robot: self-healing, self-programming, evolvable

- new generation of autonomous systems: small, reconfigurable, adaptive, collective, energy-efficient

- deep space/deep sea exploration, search and rescue