

# MECO



# AN AUTONOMIC MANAGER FOR EDGE- COMPUTING PLATFORMS

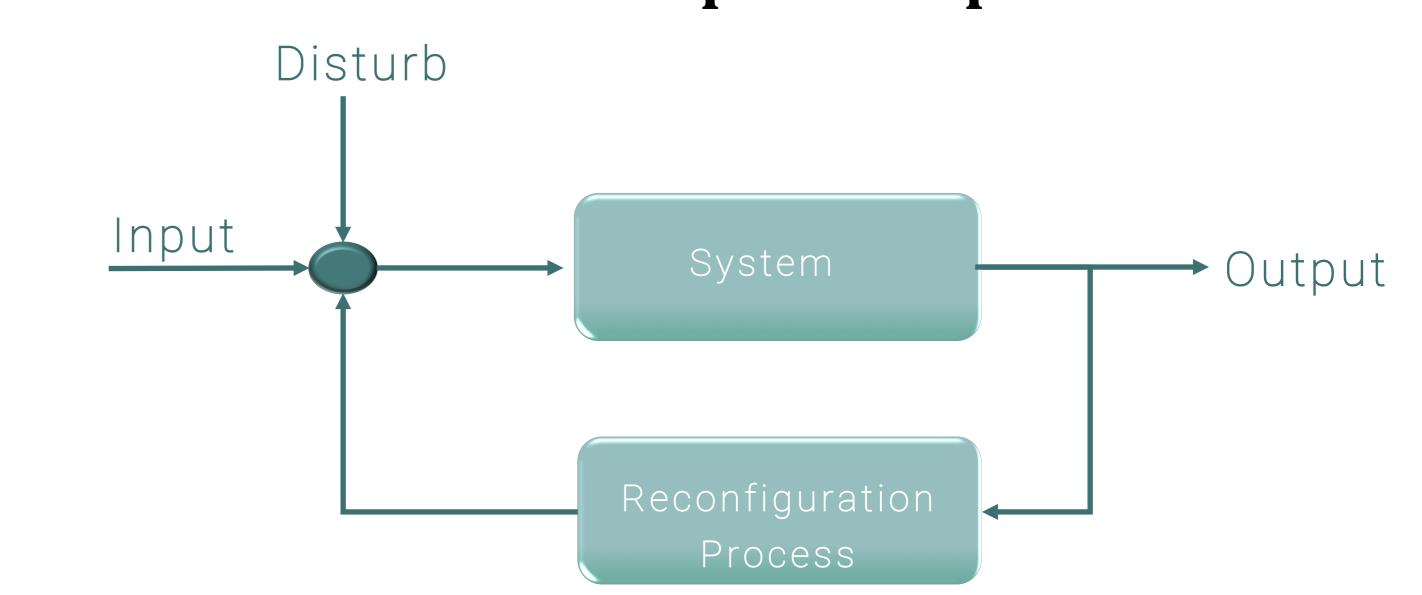
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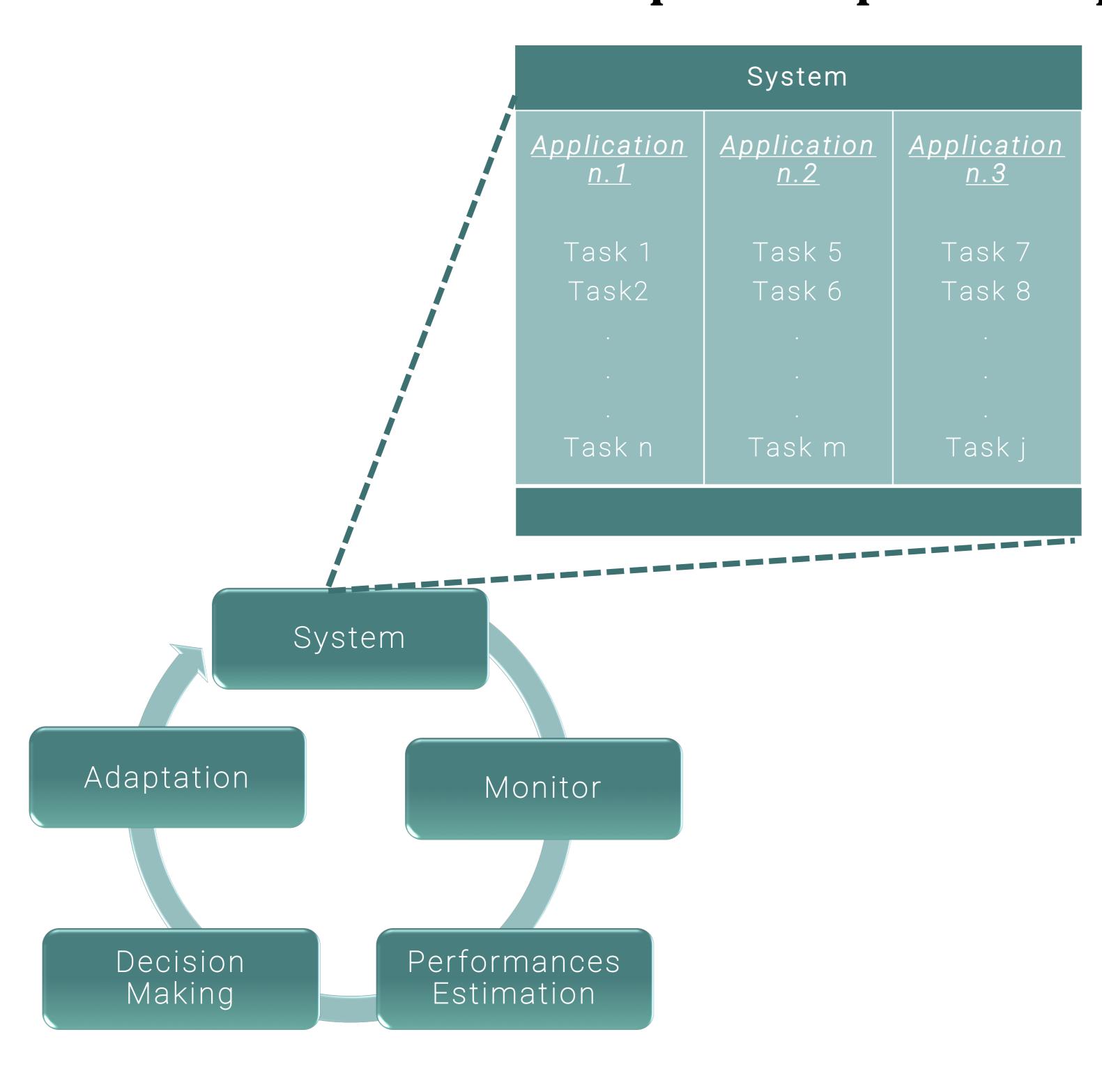
### Introduction

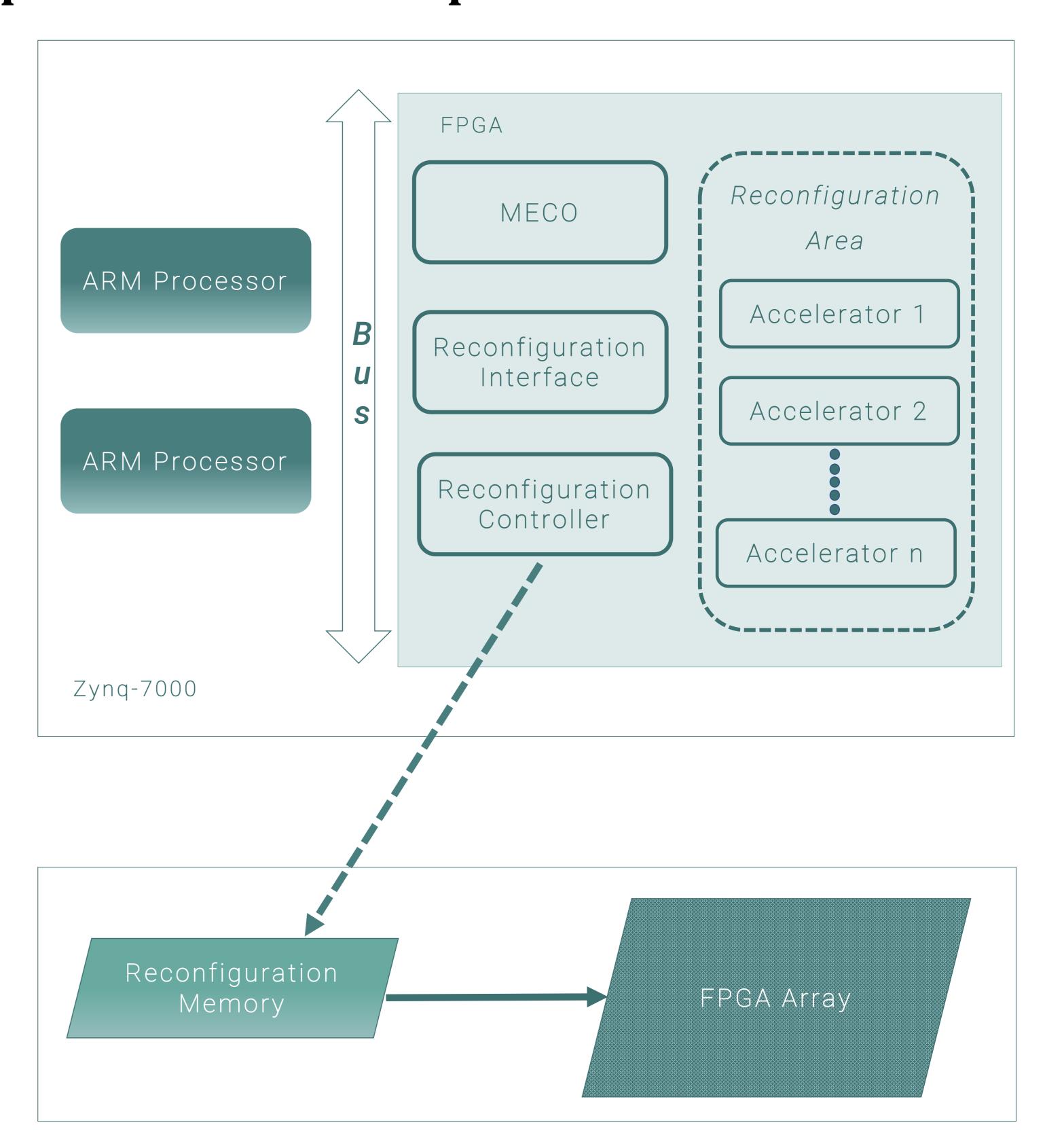
- MECO goal To manage the self-adaptivity of Cyber-Physical Systems (CPSs) at the edge, evaluating the possible use of a Dynamic Partial Reconfiguration (DPR).
- o When CPSs ask to MECO?
  - When the CPS must adapt itself to environment changes.
- How MECO does respond to CPSs?
  - Whether a DPR is profitable or not (in term of timing performances);
  - A number quantifying the time delay eventually introduced by DPRs.

## Context of Use: self-adaptive loop



# MECO self-adaptive loop and the proposed hardware implementation

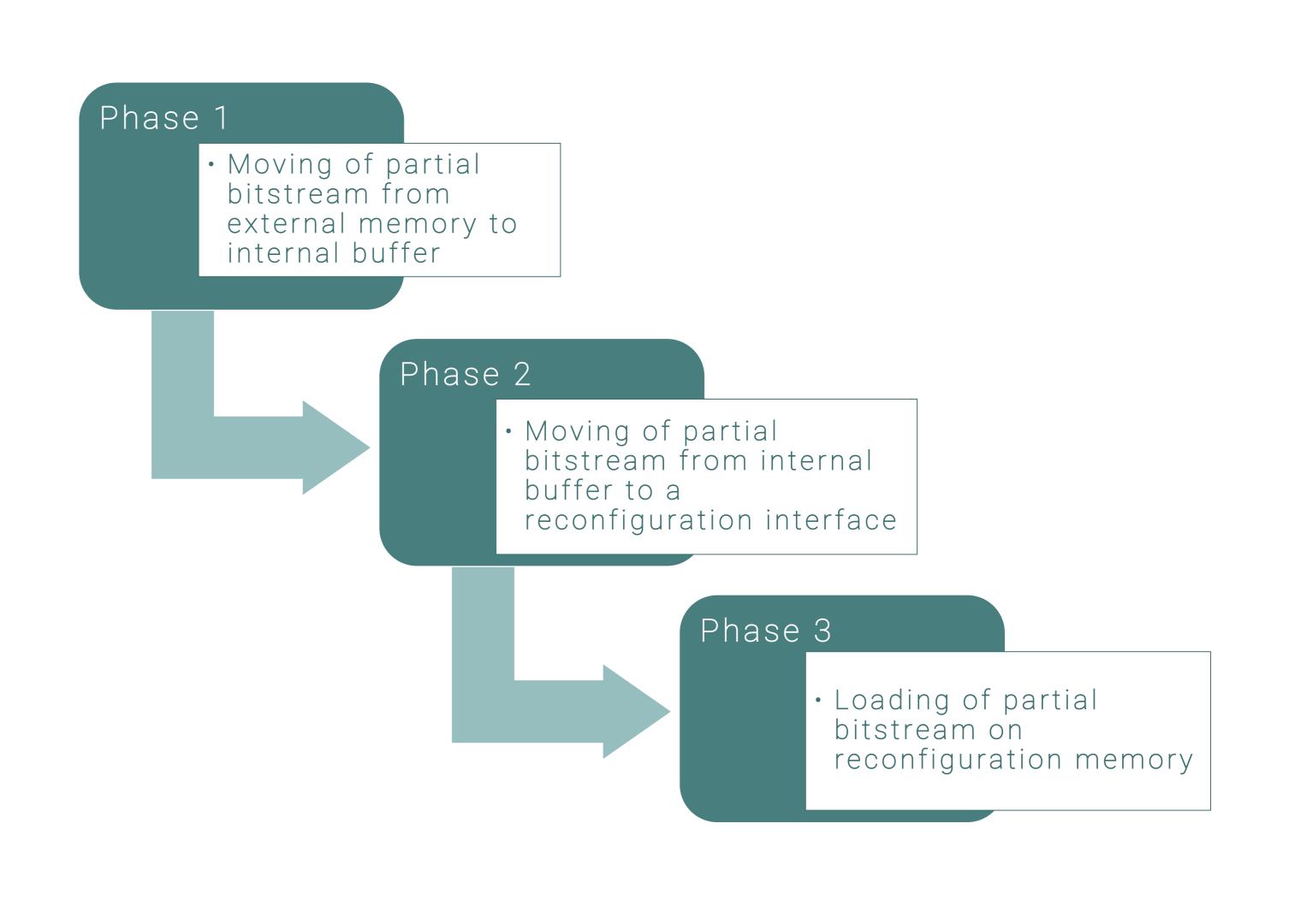




### **MECO flow**

# To wait for application execution starting To take execution time from monitor Does execution time from monitor NO VES Is the DPR process profitable? To perform DPR To launch Alarm

# Dynamic Partial Reconfiguration Phases on FPGA



### Acknowledgements

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