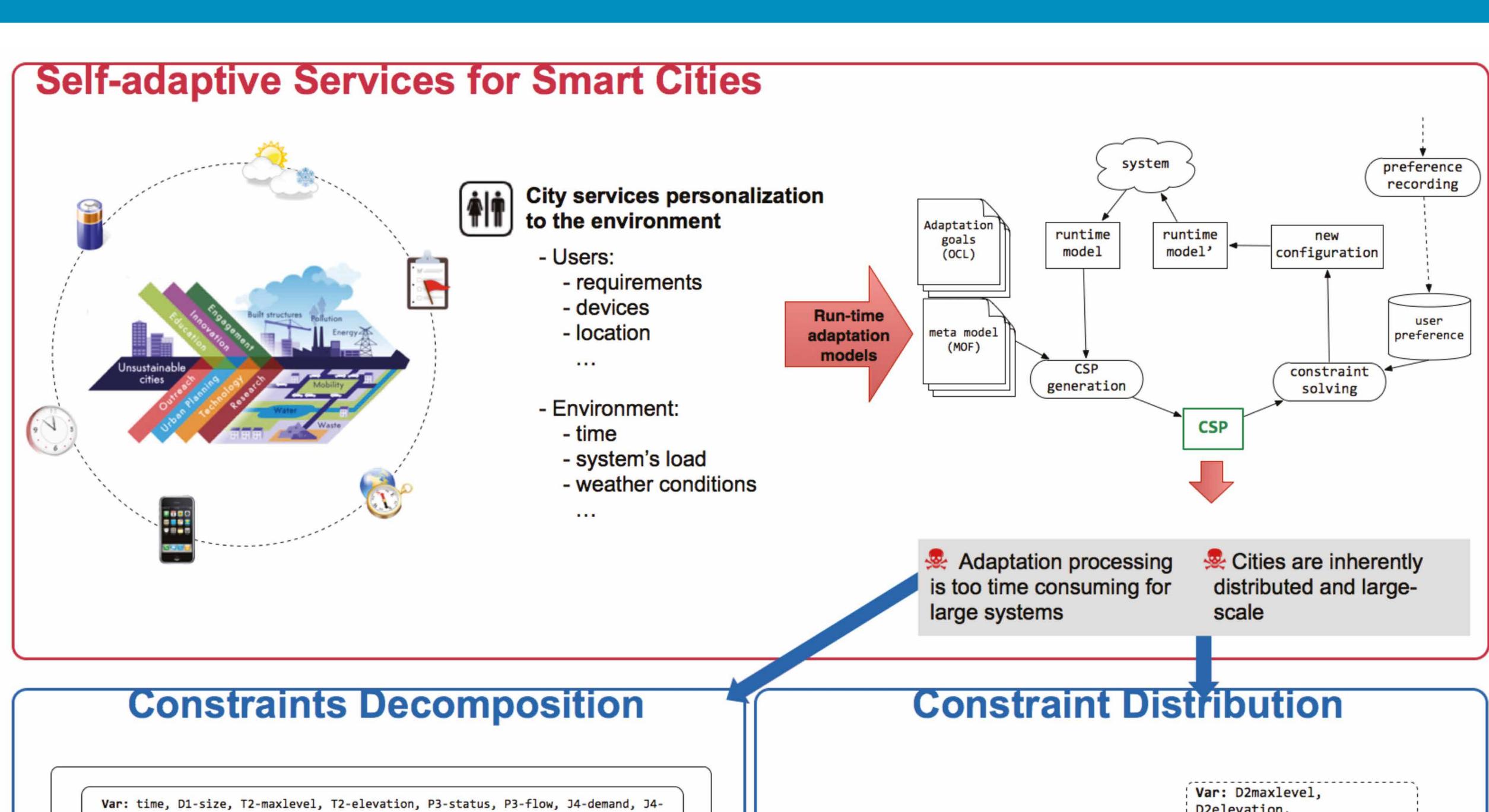


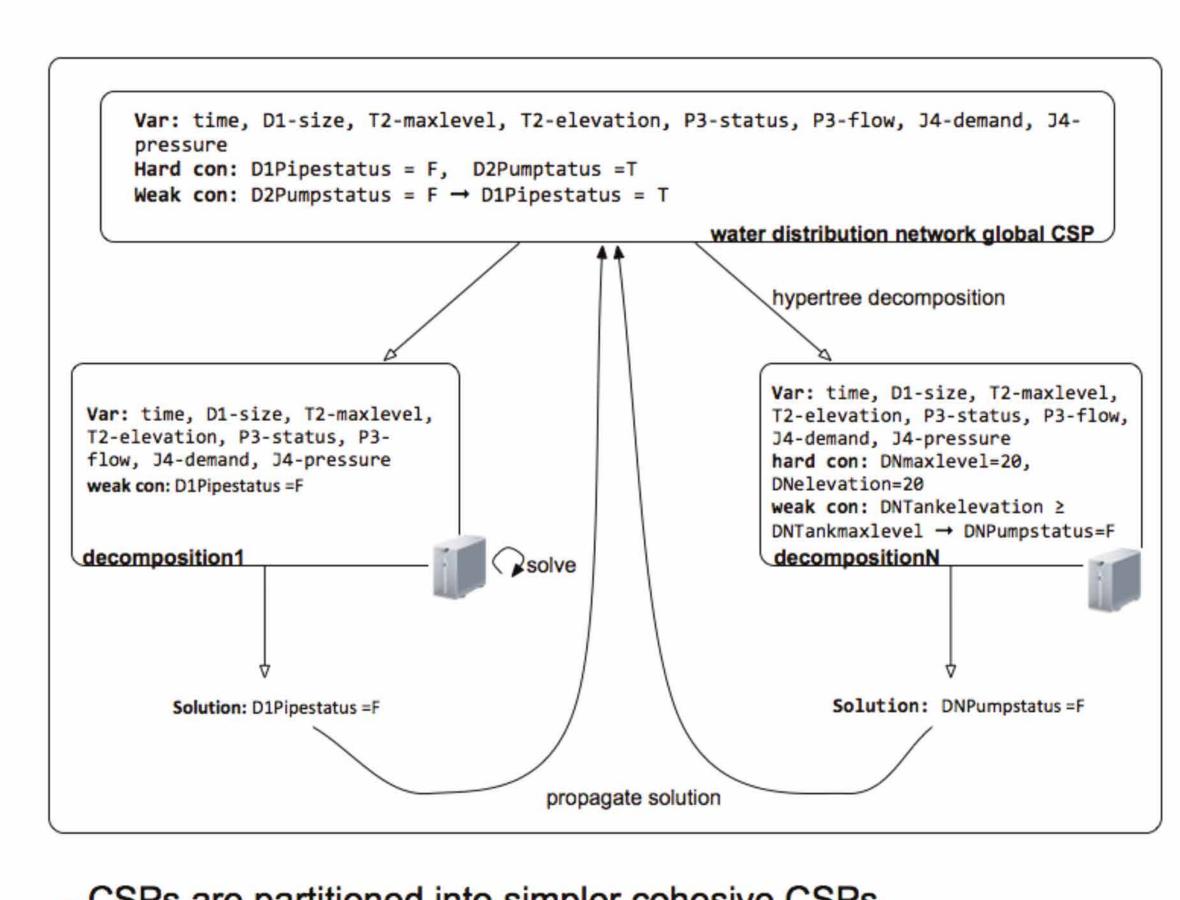




Opening-up Adaptive Systems from Within

Nicolás Cardozo, Pawel Idziak, Saaed Hajebi, Stephen Barrett, Aidan Clarke, Siobhán Clarke





- CSPs are partitioned into simpler cohesive CSPs
- CSP partitions are related through a global entity
- Each partition is solved independently

D2elevation, D2Tankelevation, D2Tankmaxlevel, D2Pumpstatus Con: D2elevation = 20, Var: D2Tankelevation, D2maxlevel = 20, D2Tankmaxlevel, D2Tankelevation ≥ D2Pumpstatus D2Tankmaxlevel → Con: D2Tankelevation ≥ D2Pumpstatus=F D2Tankmaxlevel → D2Pumpstatus=F solve solve ad hoc connection Distributed components with ad hoc discovery Var: D2maxlevel, D2elevation Solving with incomplete Con: D2elevation = 20, D2maxlevel = 20 information Independent solutions are solve reused for combined CSPs



Goal: Distributed and efficient adaptation reasoning and enactment

