Execution Architecture Soft Real Time design

by *Gerrit Muller* University of South-Eastern Norway-NISE
e-mail: gaudisite@gmail.com
www.gaudisite.nl

Abstract

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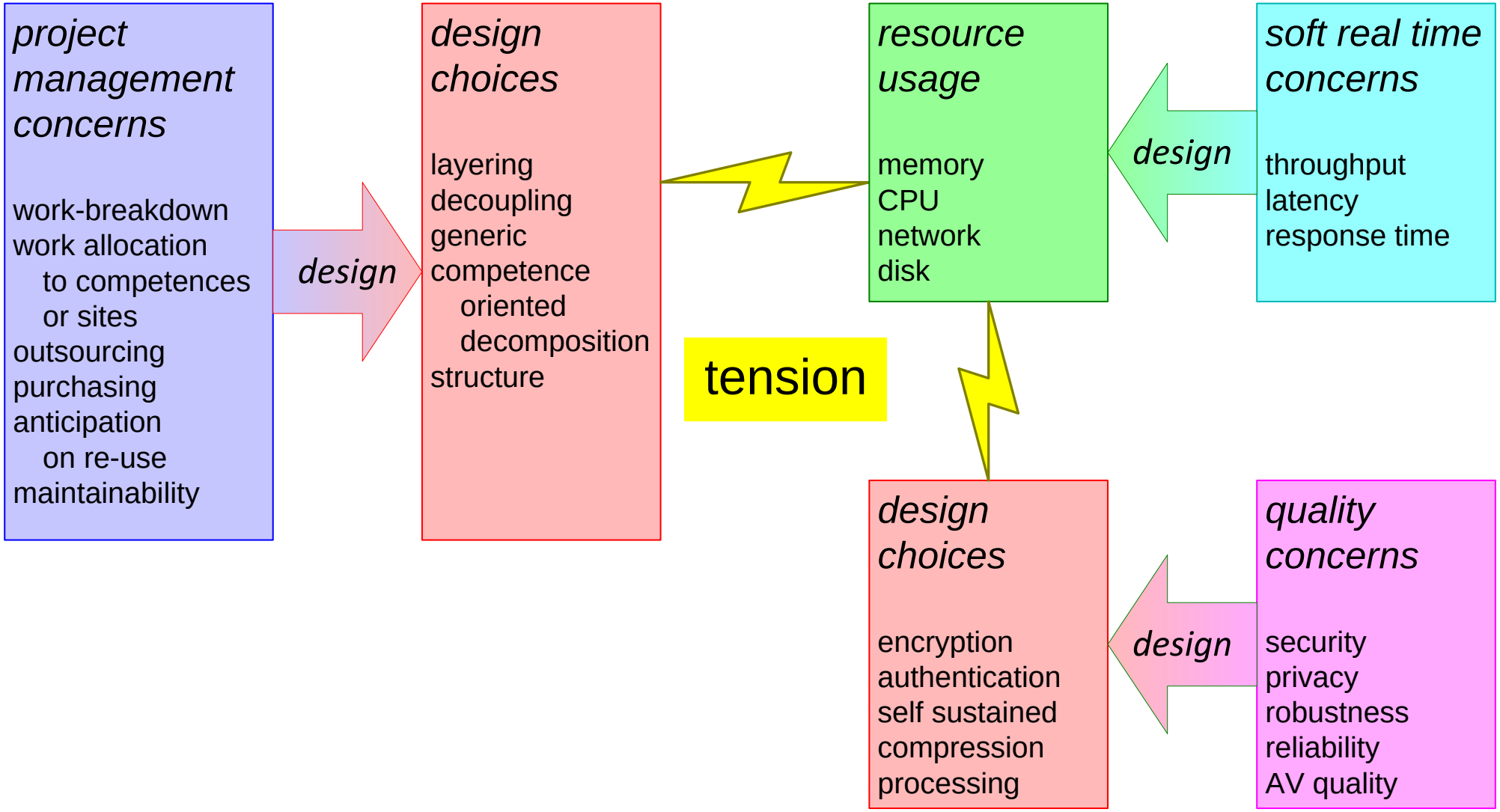
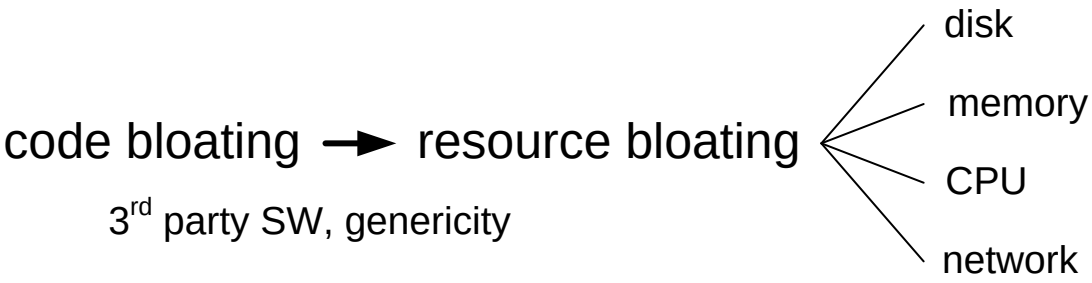
logo
TBD

Tension between different types of concerns



Root causes of soft real time problems



abundant layering or decomposition

too fine granularity eg bytewise I/O

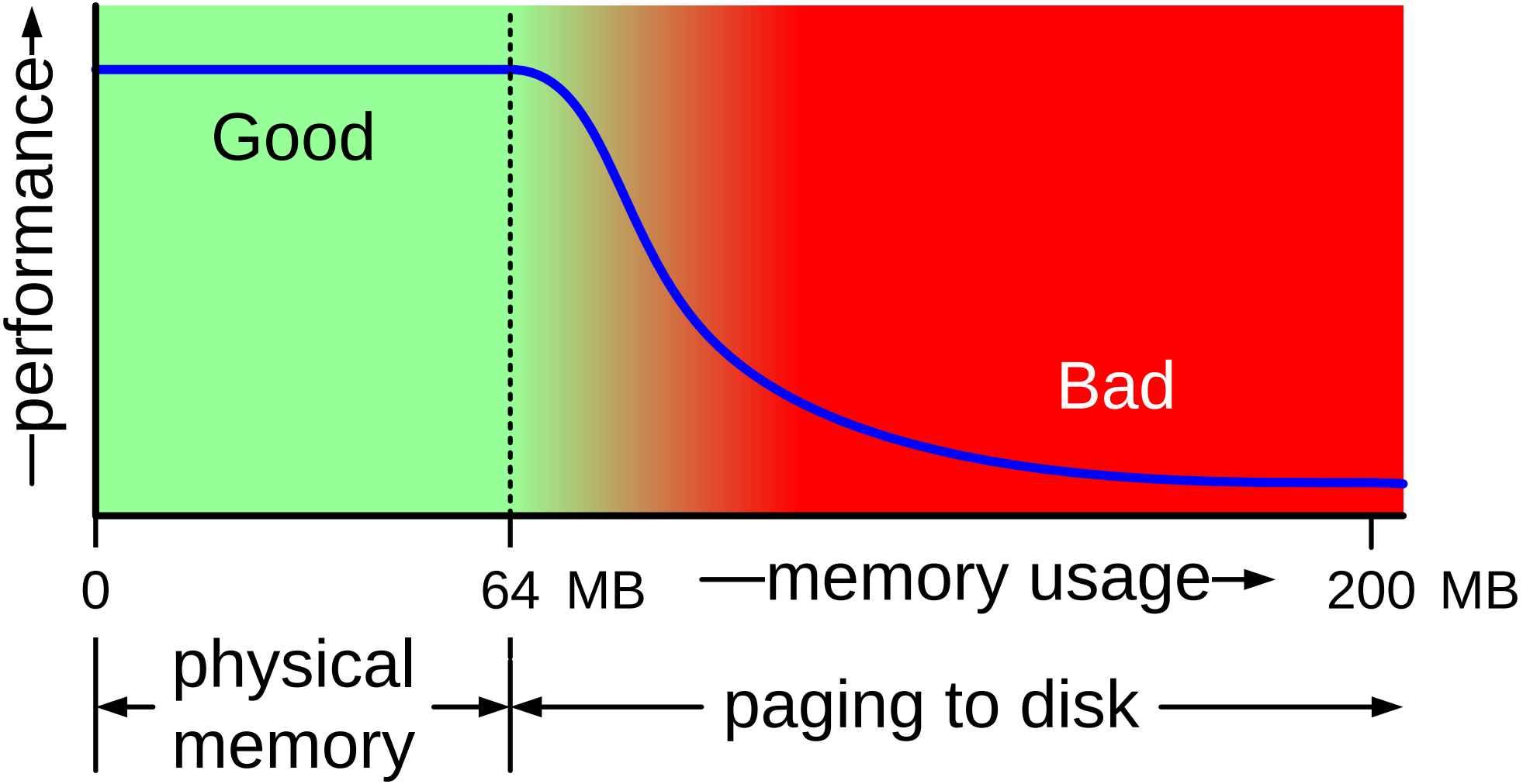
sequentialization

counterproductive optimization eg prefetching

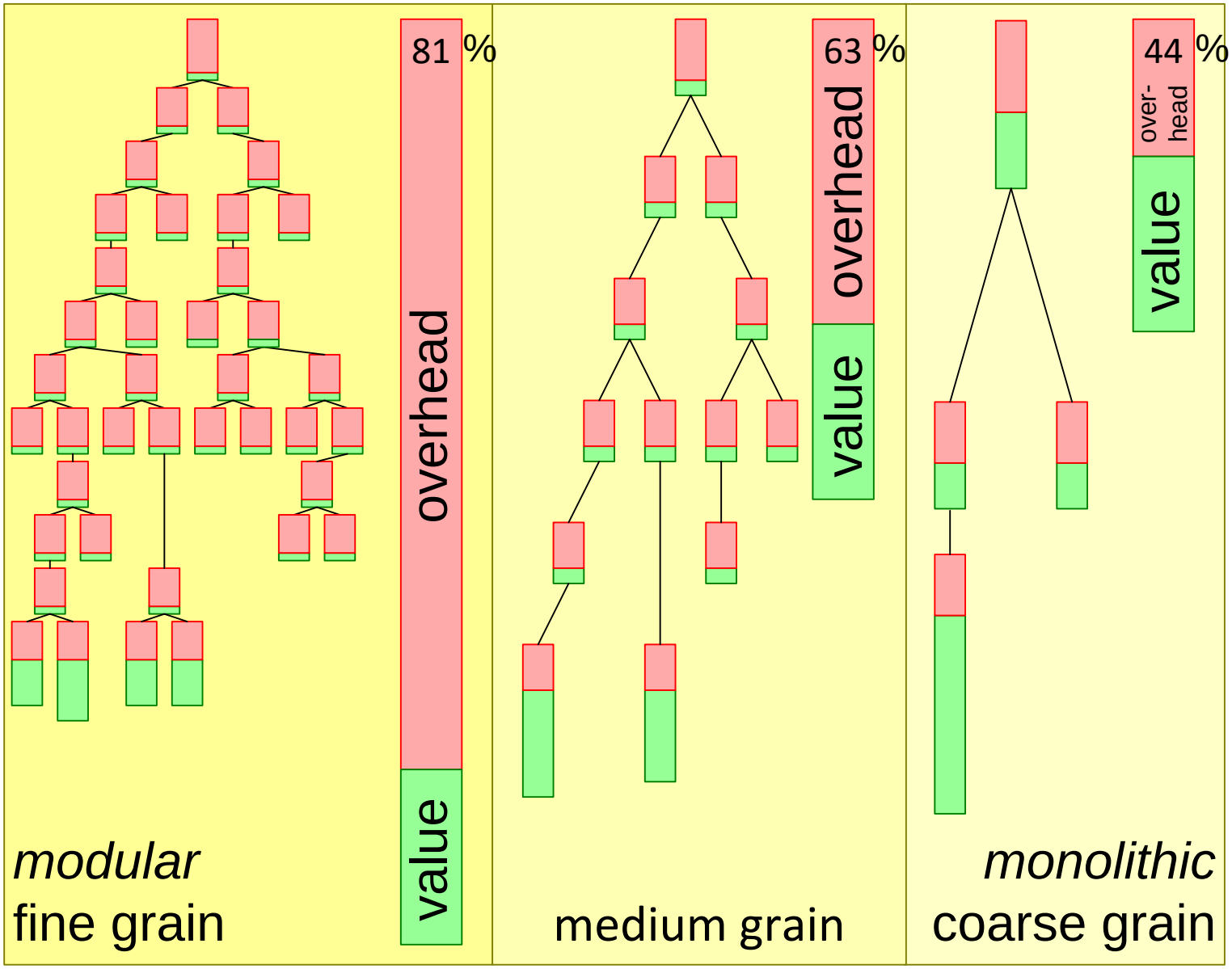
background activities virus scanners, firewalls, polling activities (Windows critical update)

scaleability of algorithm e.g. searching brute force works upto ca 10000 entries

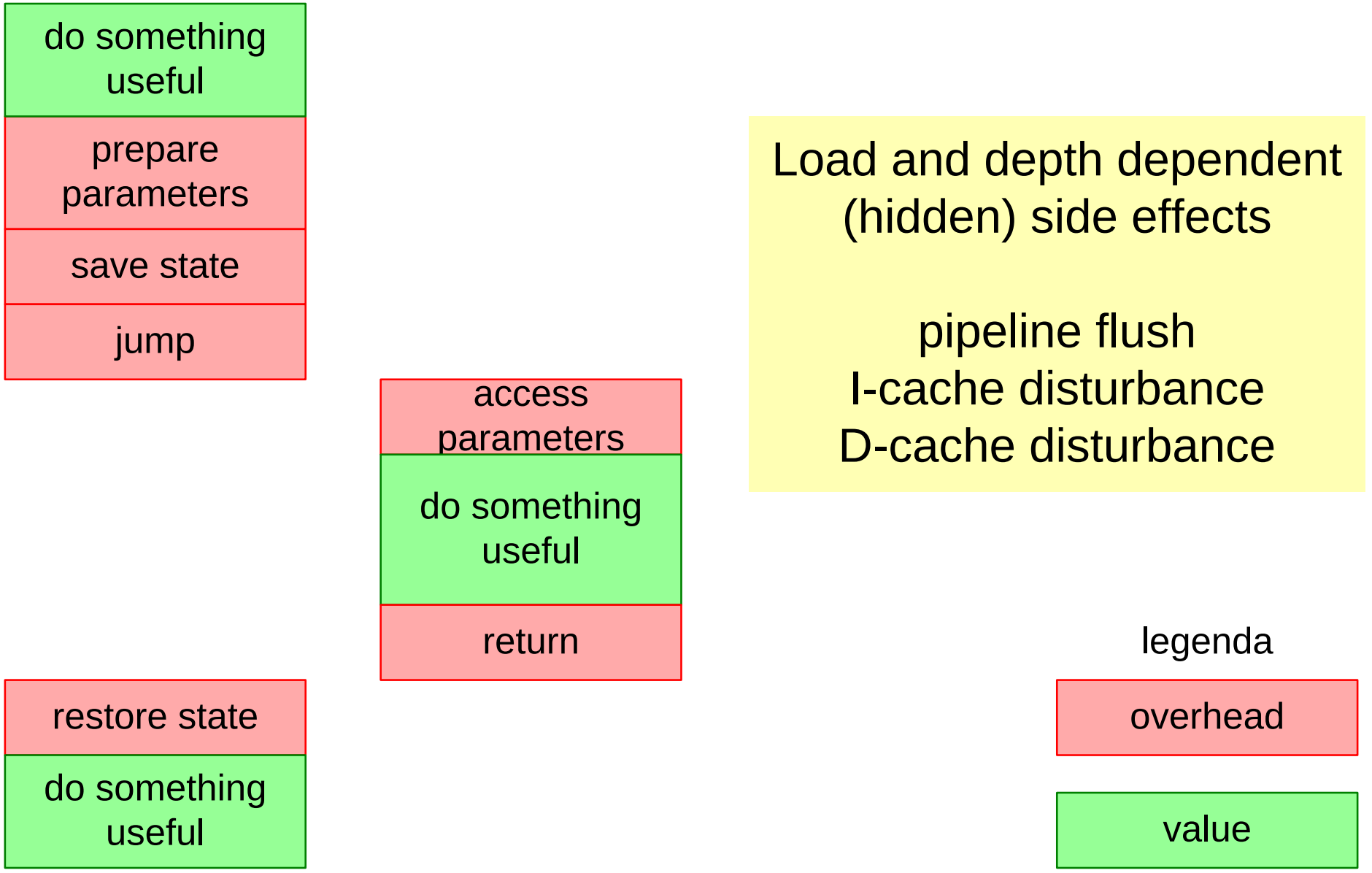
Performance as function of memory use



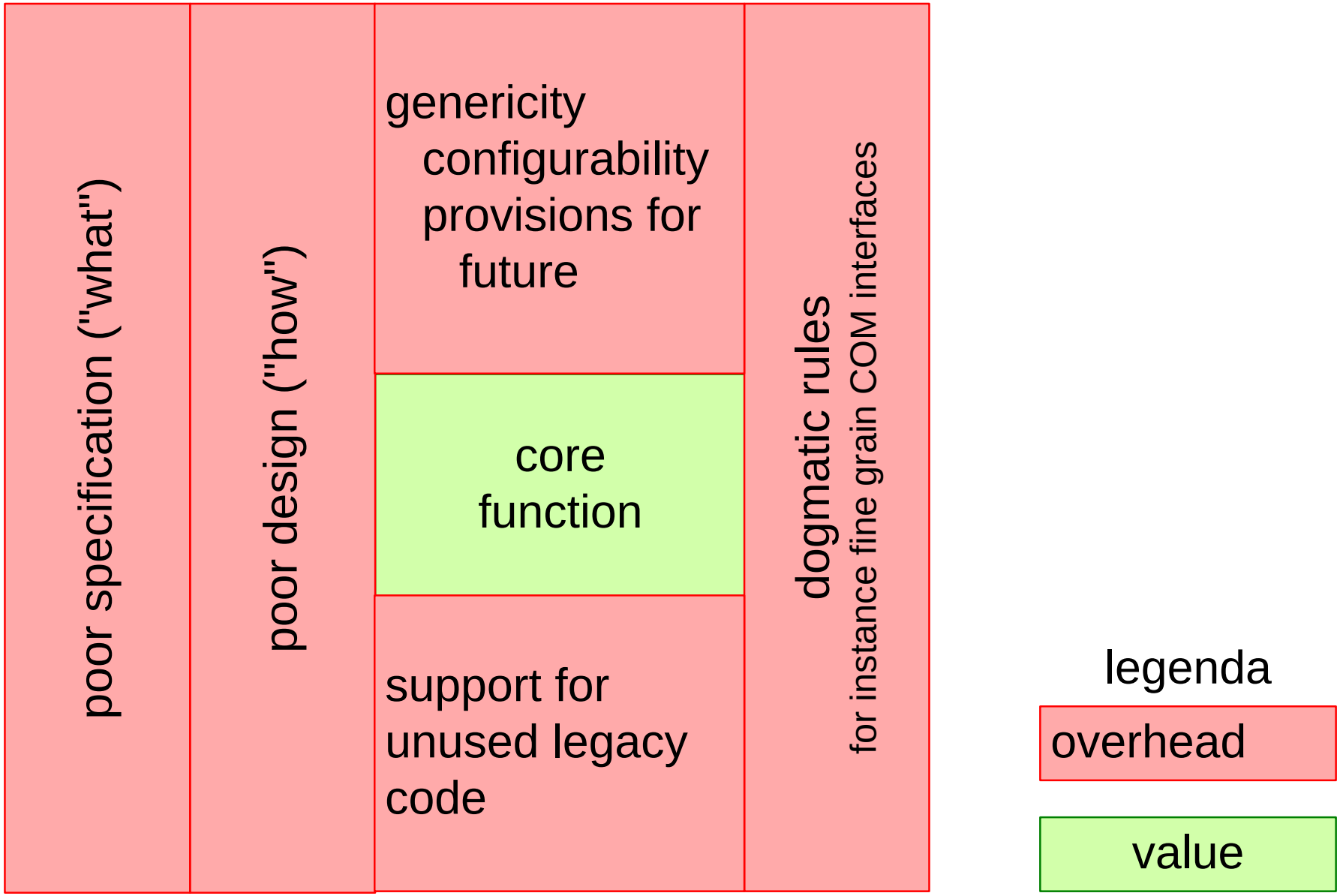
Overhead penalty of modularity



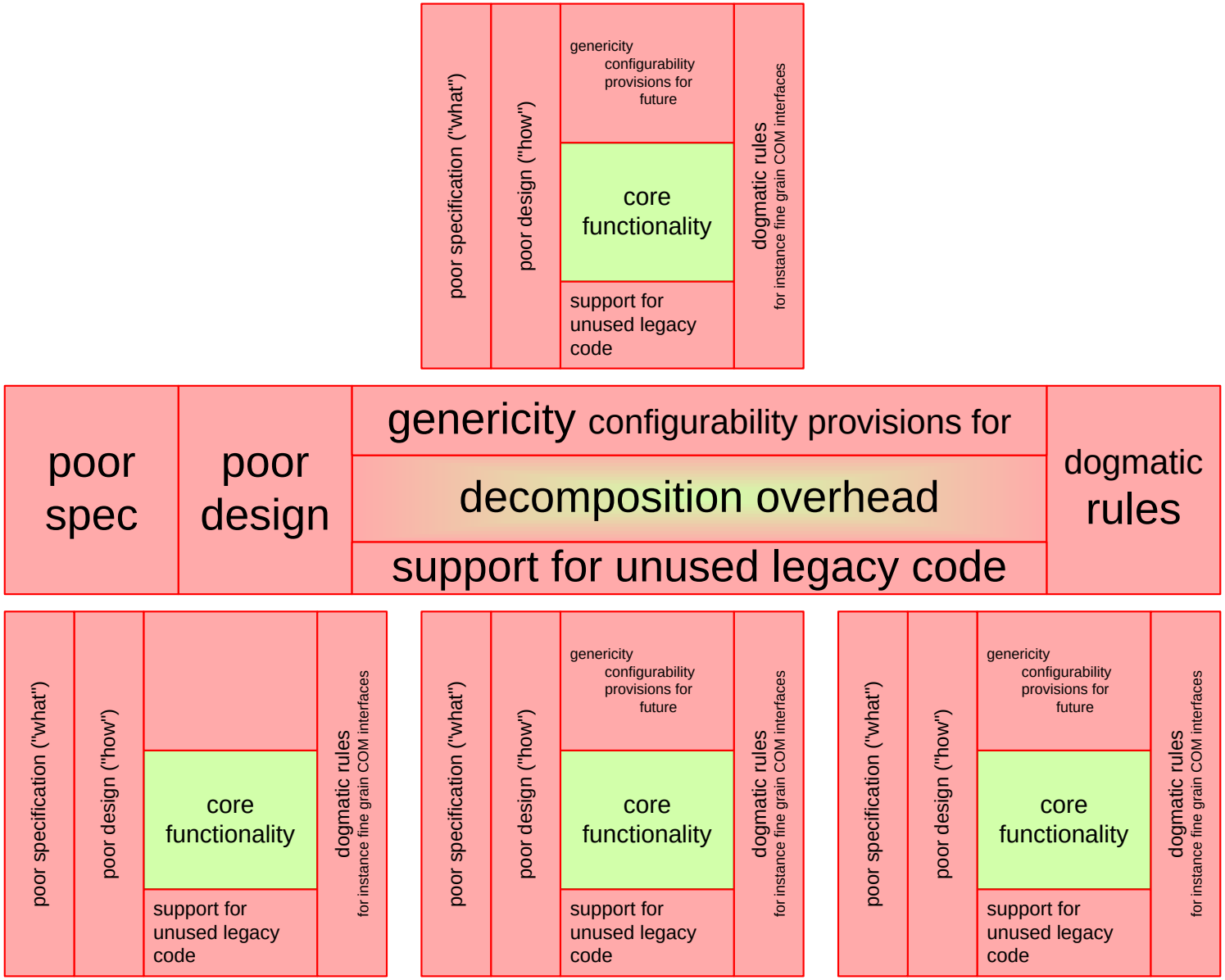
Function call overhead



Bloating explained



Bloating causes more bloating



causes even more bloating...