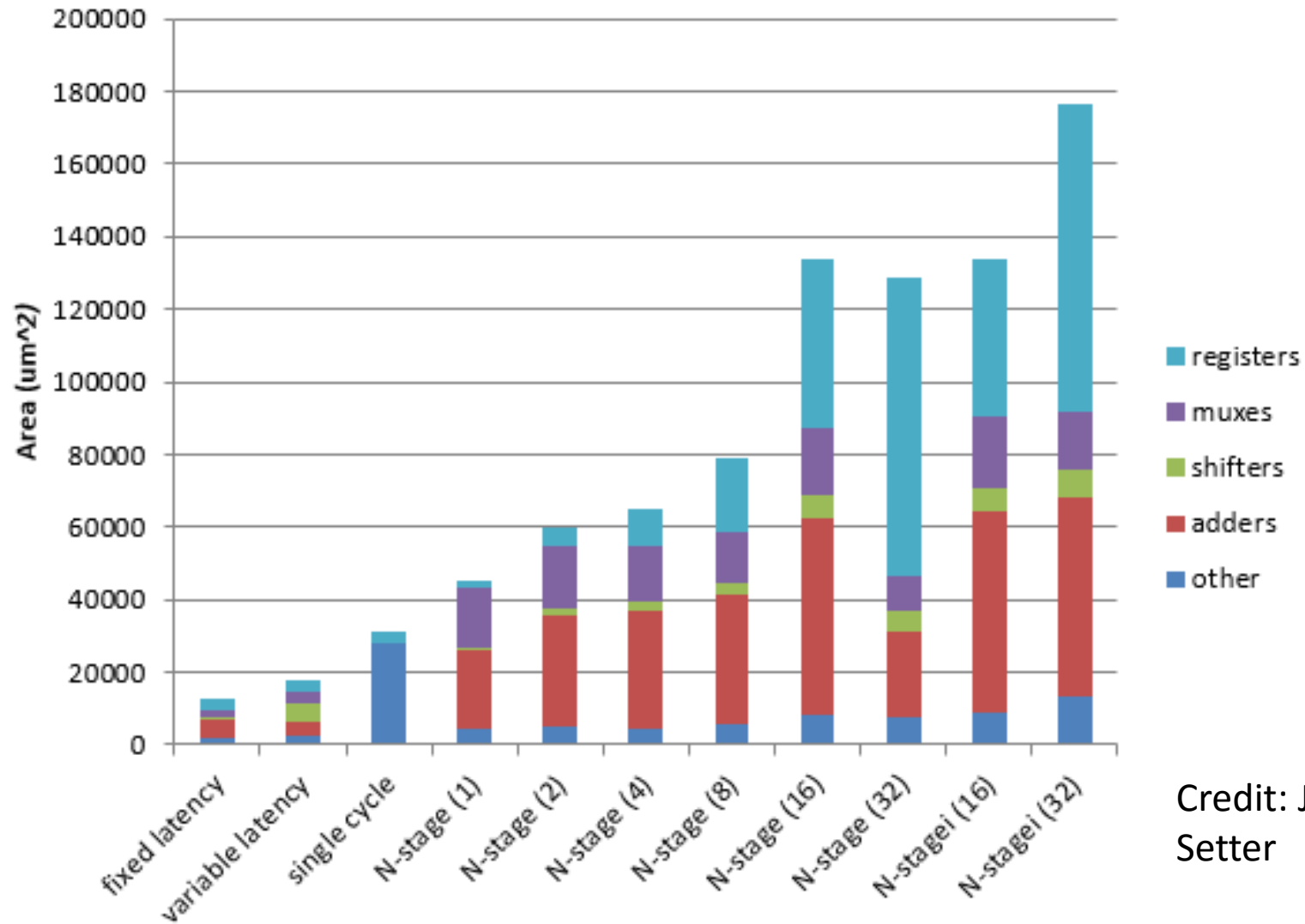


Credit: Jason Setter

## Stacked Area Distribution for Designs



Credit: Jason Setter and Jeff Setter

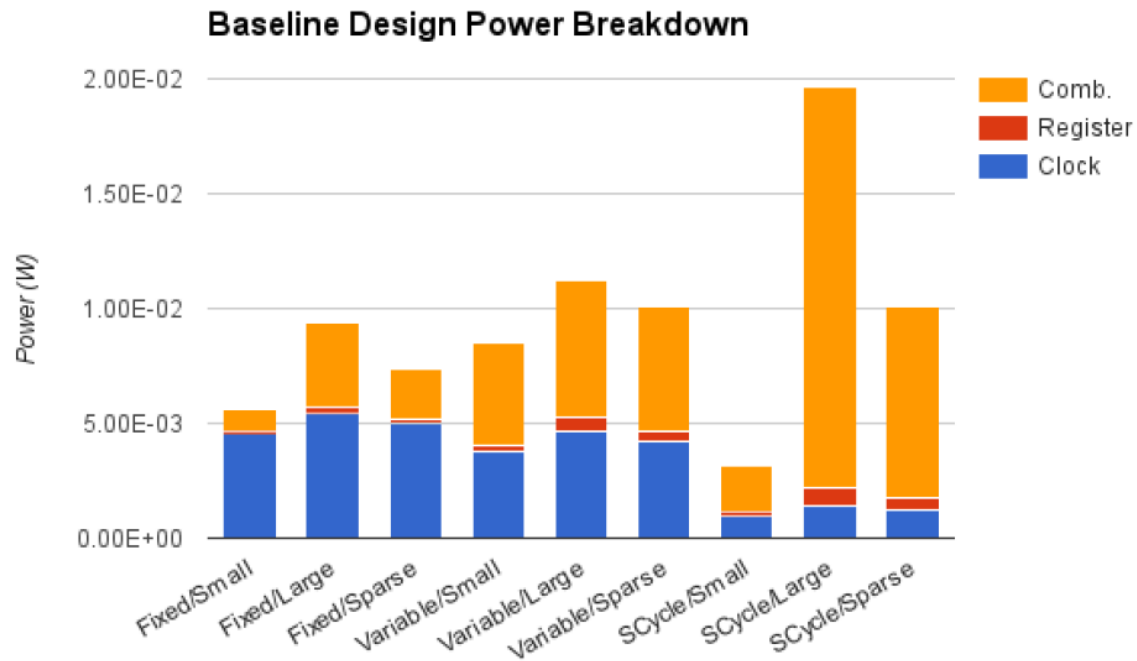


Figure 6: Breakdown of the baseline design power consumption.

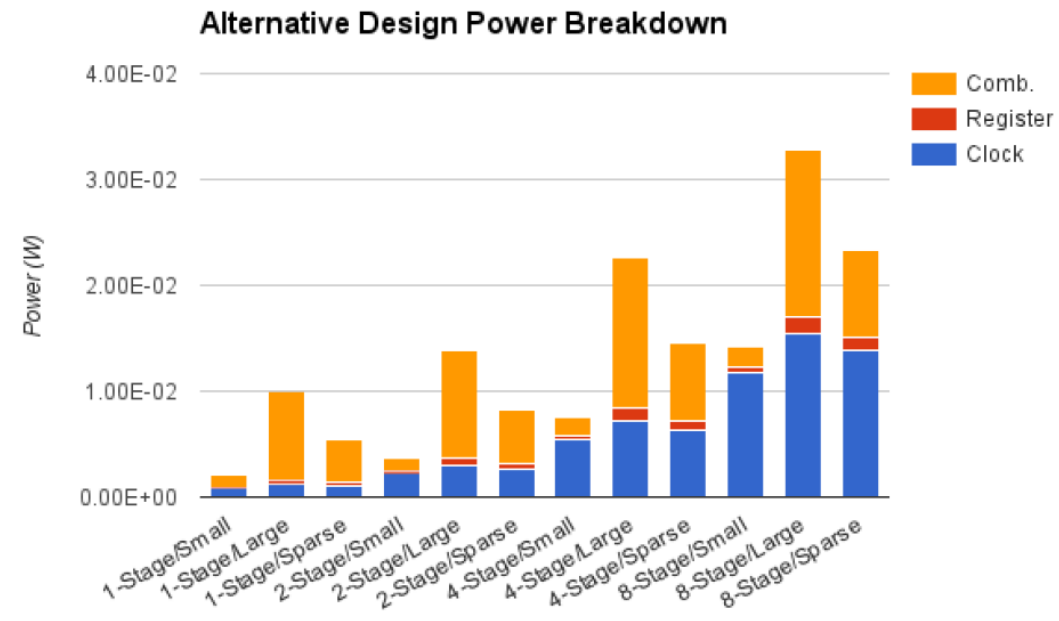
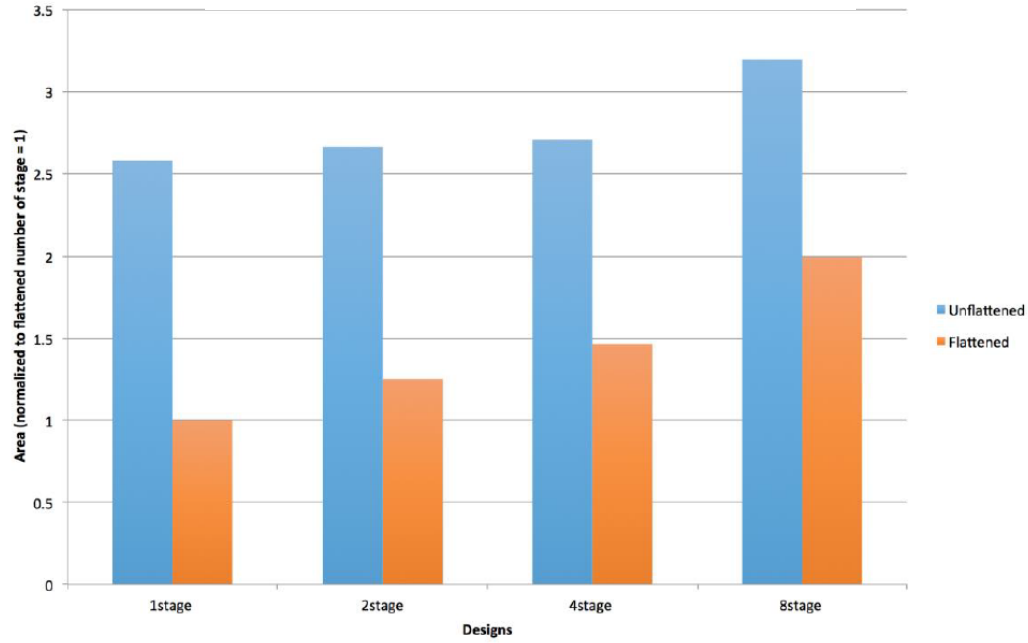


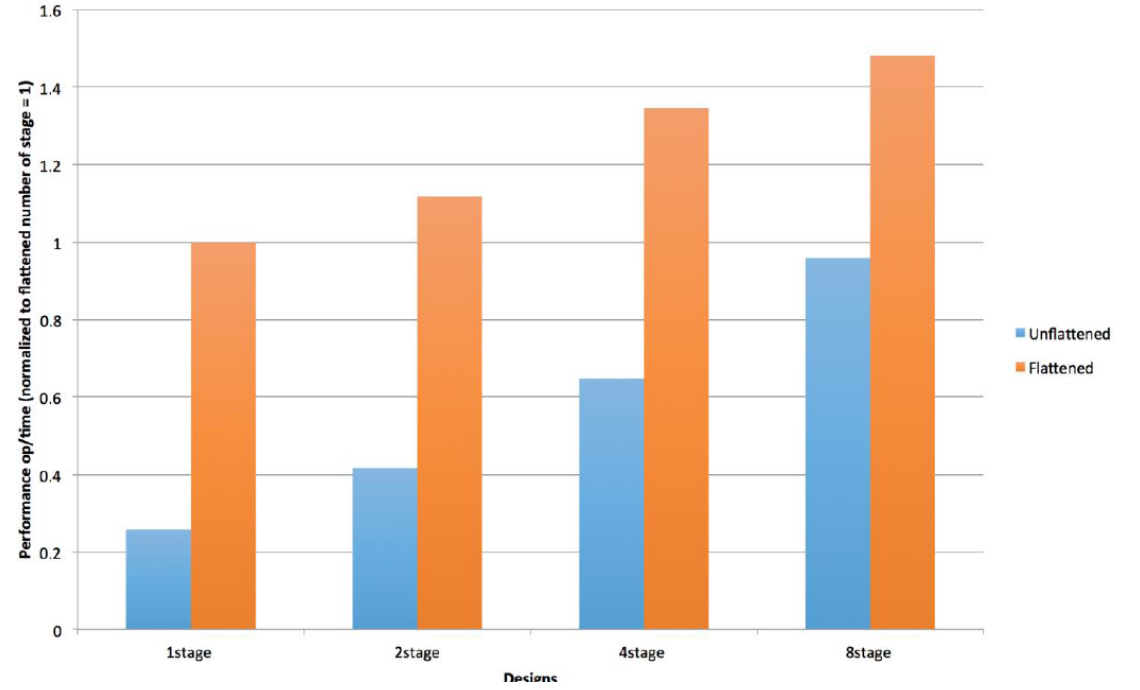
Figure 7: Breakdown of the alternative design power consumption.

Credit: Alex Rucker and Saikrupa Iyer

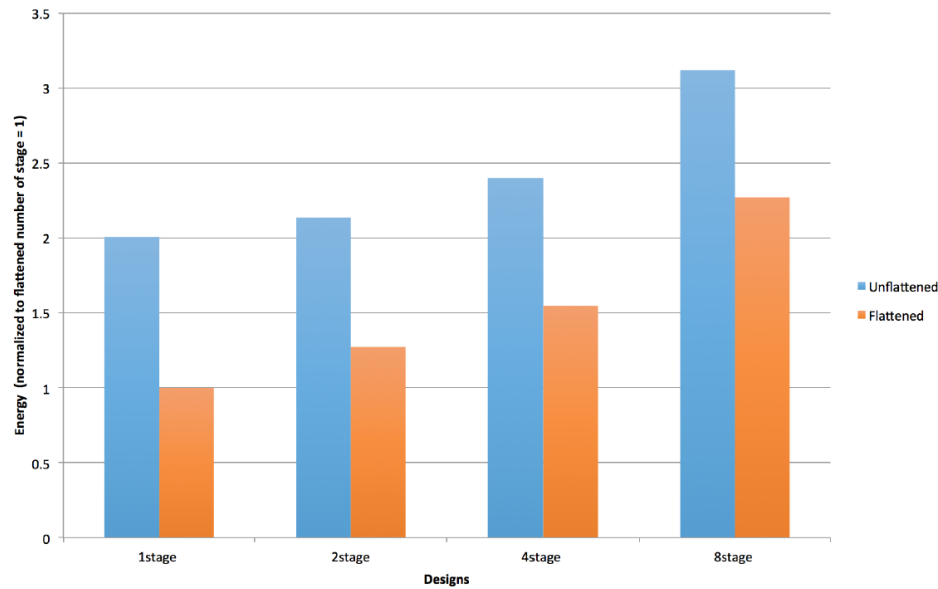
### Area



### Performance

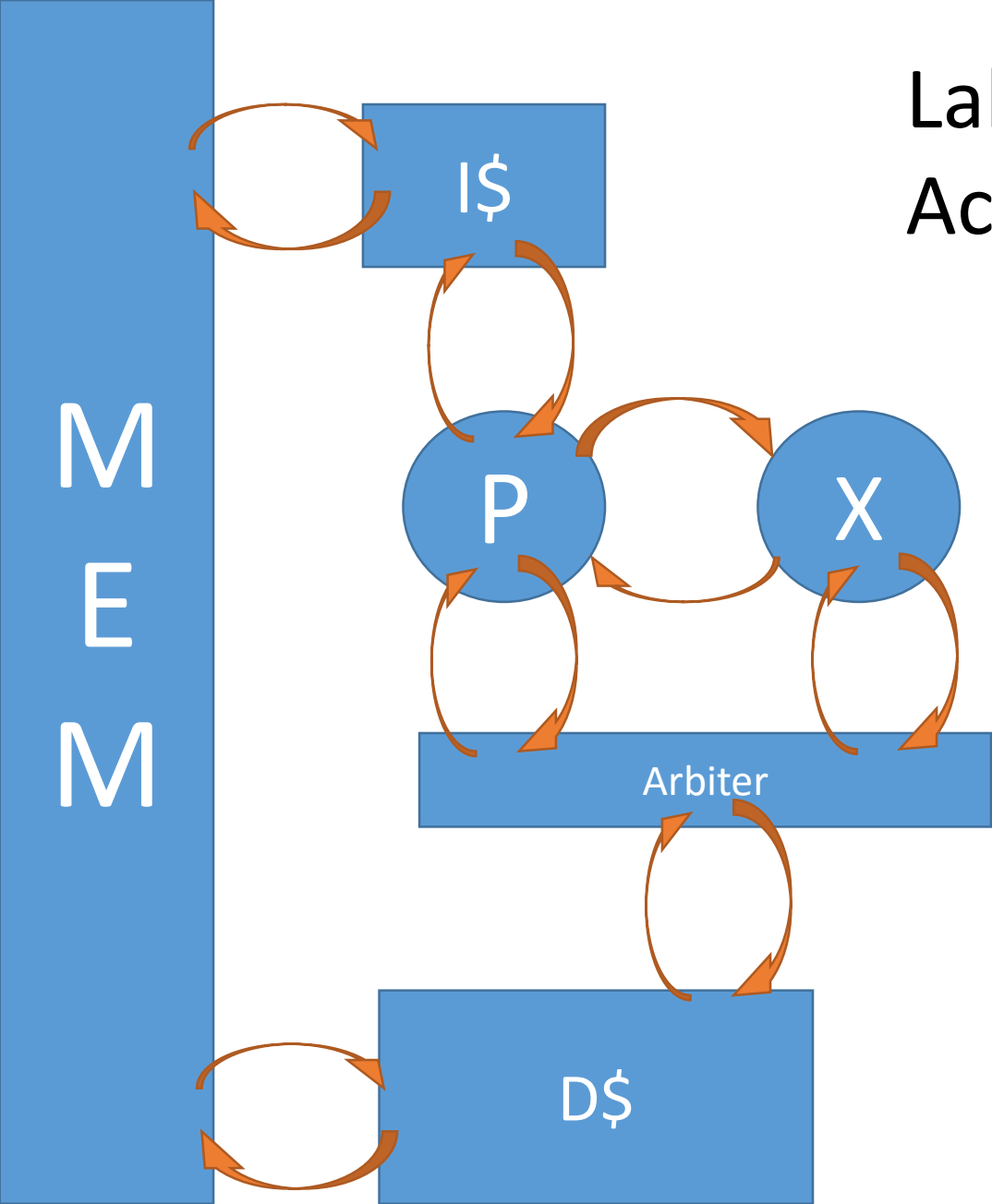


### Energy



Credit: Khalid Al-Hawaj and Baturay Turkmen

# Lab 2: Sorting Accelerator



# Lab 2: Sorting Accelerator

- Accelerate sorting  $k$  numbers for any  $k$
- Need HW/SW codesign
- Remember to explore performance/area/energy space
- Start simple and add complexity
- Accelerator can be FSM, parallel, or streaming
- Start by building accelerator in isolation (we will add rest of components later)