
iTRIS
Center for Information Technology
Research in the Interest of Society

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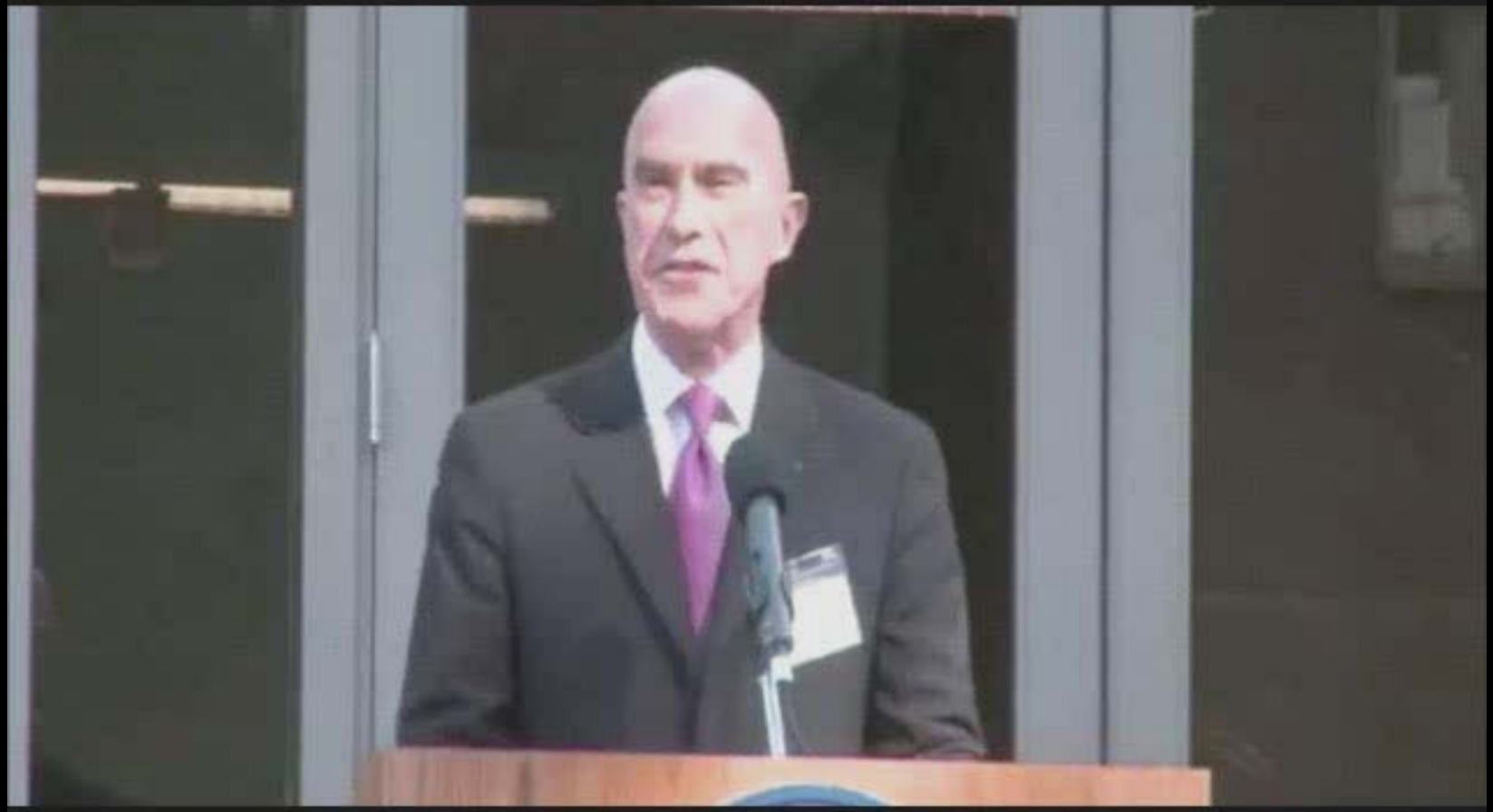
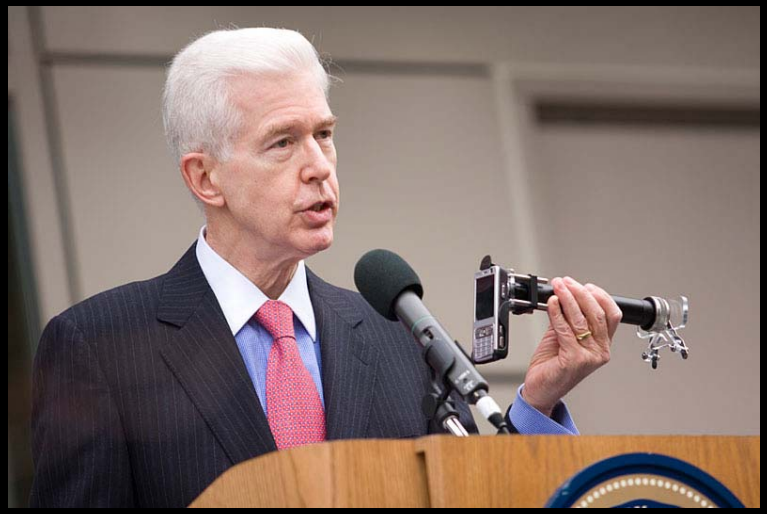


CITRIS began with State funding in 2001



$ 780 million raised in research dollars at CITRIS since its formation

Recent Visits and Delegations

Danish Council for Research Policy

Valerie Pecresse, French Minister of Higher Education

Dieter Imboden, President of the Swiss National Science Foundation

Multi-disciplinary IT Projects for Society

- *Not "technology-push" in our new Nano/MEMS lab*

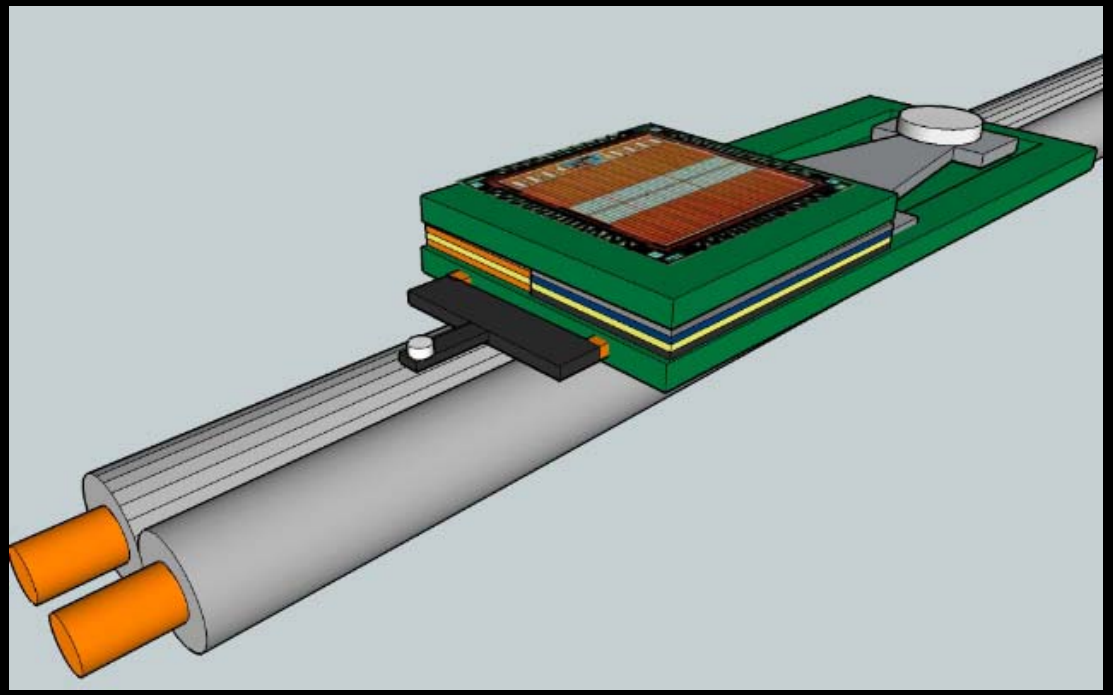
- *Professors from Architecture, Business School, Law School, Public Policy, Political Science, and the Lawrence Berkeley Laboratory also have offices in our Headquarters building*

The California Energy Commission (PIER) and CITRIS

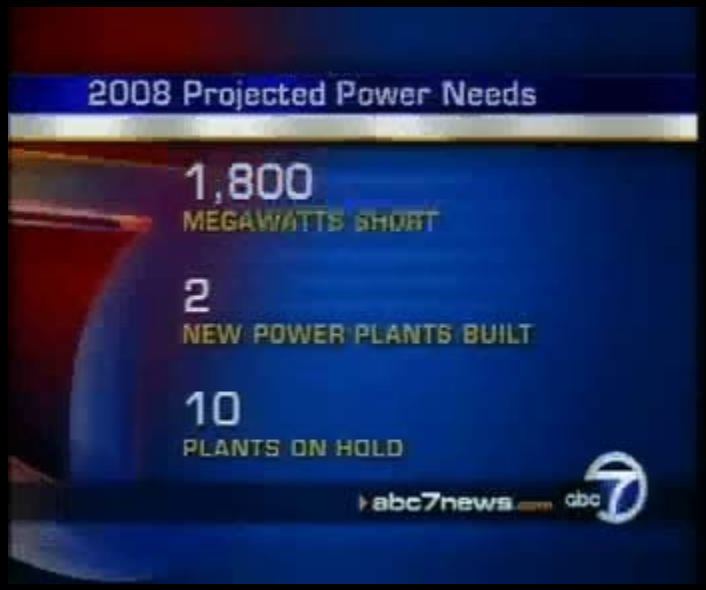
- Stability in the Californian Energy supply
- ~$5M in PIER funding since PIER project began
- Cloud-computing test bed for modeling of CA energy supply (IBM)

The original vision and context

- Integrated project
  - Architecture, Engineering, Human factors
- 10 x 10 technology
- Mote of the future
- Place anywhere anytime -- integrated into any energy system



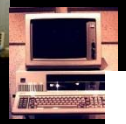
Multidisciplinary Project



Macro to Micro to CMOS Systems

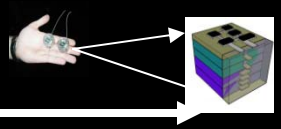
Stand alone computers **1960s**

Connected computers **1980s**



Distributed computers **2000s**

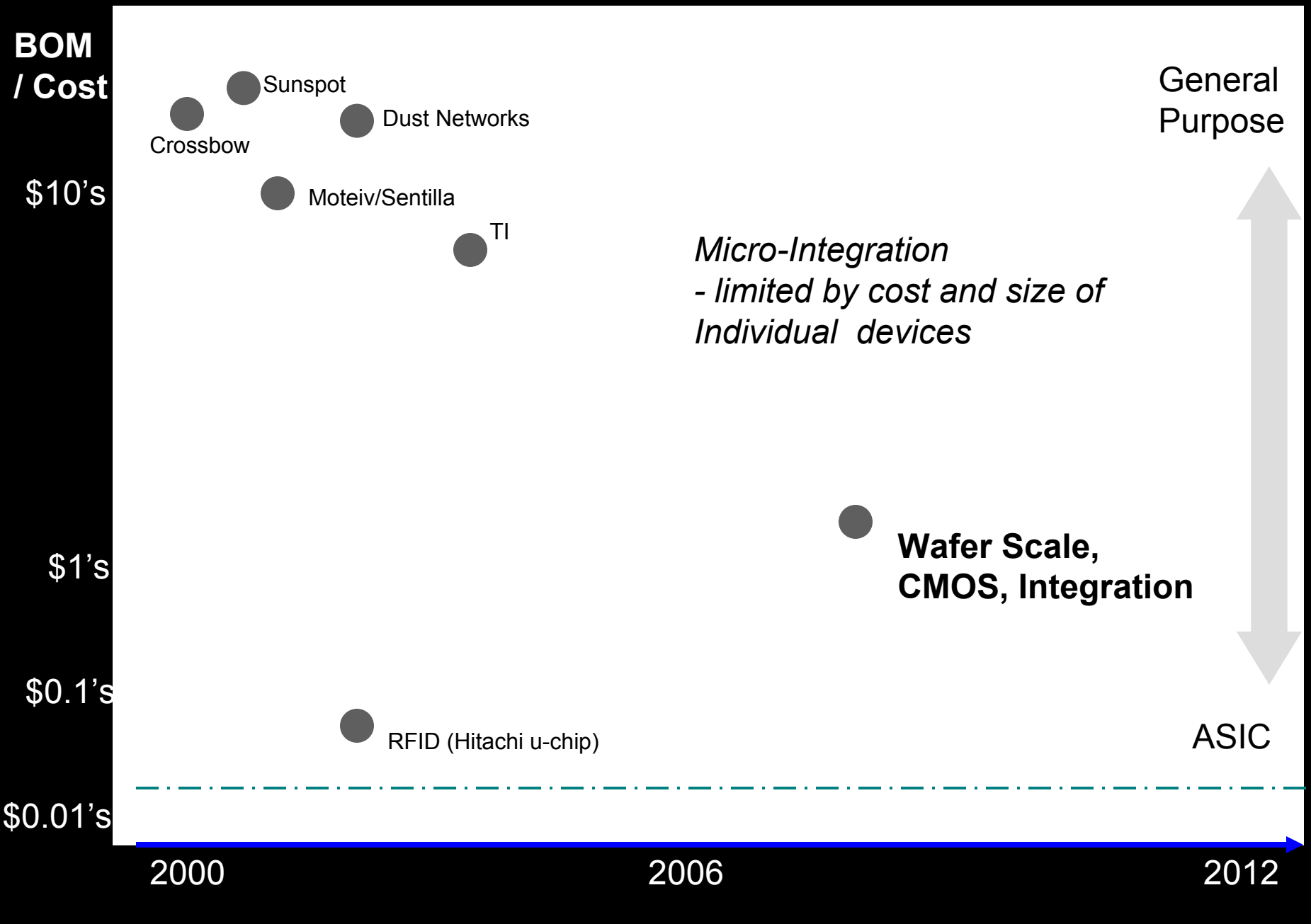
"Smart Dust"



"Pico Cube"

Vast reduction in cost, but additional capability →

Adapted from Various Sources:
E.g. G. Bell, R. Newton, J, Rabaey, D. Culler, K. Pister, P.Wright


BOM / Cost
$10's
$1's
$0.1's
$0.01's
Sunspot
Crossbow
Dust Networks
Moteiv/Sentilla
TI
RFID (Hitachi u-chip)
General Purpose
ASIC
Micro-Integration
- limited by cost and size of
Individual devices
Wafer Scale,
CMOS, Integration
2000
2006
2012

How CITRIS gets technology into the world

- 1. Industrial researchers inside our building work side by side with students, staff, & faculty (some Founding Corporations shown here)
- 2. “Shortening the pipeline” from research to prototypes
  - Projects with a mix of students – Undergraduate, MS , PhD, MBA – and multi-disciplinary faculty and post-doctoral researchers

  - Streamlining IP issues
  - Incubator and Venture Lab program in our building (MOT & CET)
- 2. Partnering with VC community in Bay Area
- 3. Partnering with Legislation and Policy
- 4. 10 x 10 technology focus: Self-powered, low power radios, MEMS