# Tech Transfer from University to Industry

- Identification
- Negotiation
- Collaboration
- Productization

# Tech-X works with Universities, DOE to make software products

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## VORPAL: a versatile plasma simulation code

License from the University of Colorado (Boulder)
- Particles and fluids originally
- Embedded boundaries for particles and fields
- Dielectrics
- Implicit algorithms
- Envelope
- Beam-frame Poisson
- GUI
- CAD
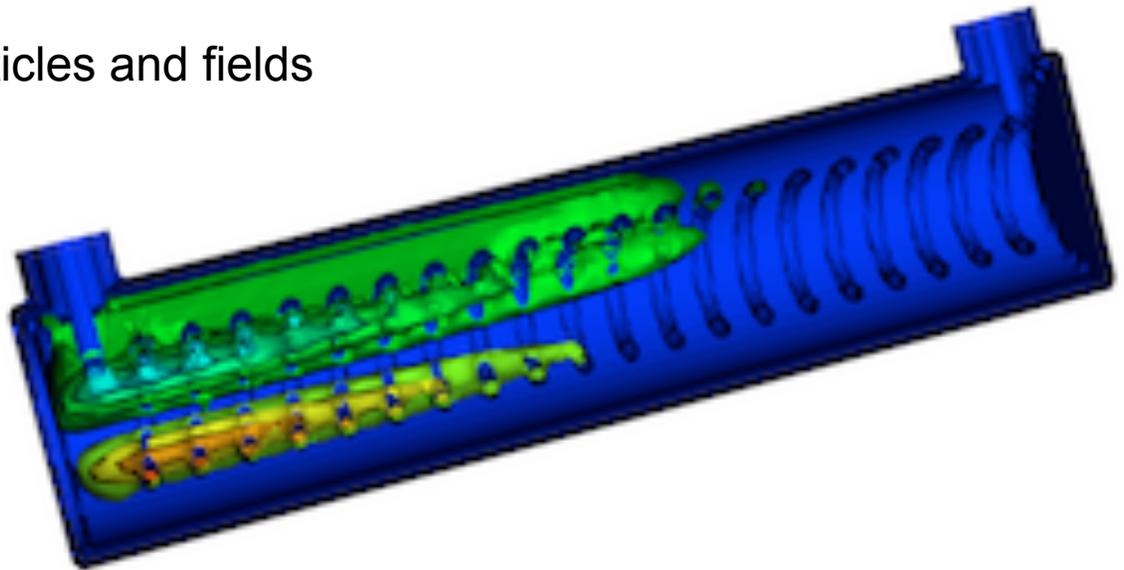
## OOPIC Pro
Licensed from the University of California (Berkeley)

# Identification (naturally aligned interests)

- Seek: at meetings, papers, …
- University Tech-Transfer Offices
  - Bayh-Dole Act (1980)
  - http://bayhdolecentral.com/, " which resulted in a dramatic growth in academic centers devoted to patenting and licensing faculty inventions"
  - Universities are no longer "just in pursuit of knowledge"
- University researchers reach out (depending on discipline)
- Evaluate
  - Can one make a product?
  - Is there a path to commercialization?
  - Public reaction [Vorpal 42 citations/year]

# Negotiation (work to align interests)

- Do this early
  - Deal fallout after working significantly is a big loss
- Consider
  - Improvements (included? first right of refusal?)
  - Exclusivity
  - Auditing requirements
  - Ownership of trademark
  - Ability to use University name
- Get comps
  - http://www.inventioncity.com/inventing102-4.html
- Look at your business model
  - Govt. sets fee at 4-8%
  - Royalty should be small compared to profit
- Universities are slow, risk averse (Mosaic! TCP/IP), have to be reminded of how they will get royalties
- If not resolving, bring more items to the table

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# Collaboration (desire aligned interests)

- IP is rarely "shrink wrapped"
- How will you work with the University to resolve?
- Consider
  - Researchers do research, which is problematic for milestones
  - Students should be getting an education, not producing a product
- Keep collaborative efforts out of the critical path, out of further IP entanglements
  - Evaluation
  - Testing

# Productization (On the company)

- Releasing (manufacturing)
  - Robustness
  - Packaging
  - Marketing
- Build a structure that allows replacement
  - The best technology changes
  - The market changes – what is the next product?
- Use the University
  - "Based on the work of Nobel laureate, Kim Smith"
  - "Built on the technology behind the discovery of wizardons"

# The End