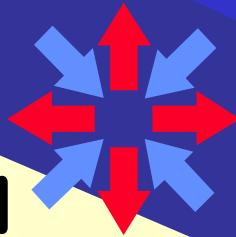


# *Engineering Process & Intellectual Property*

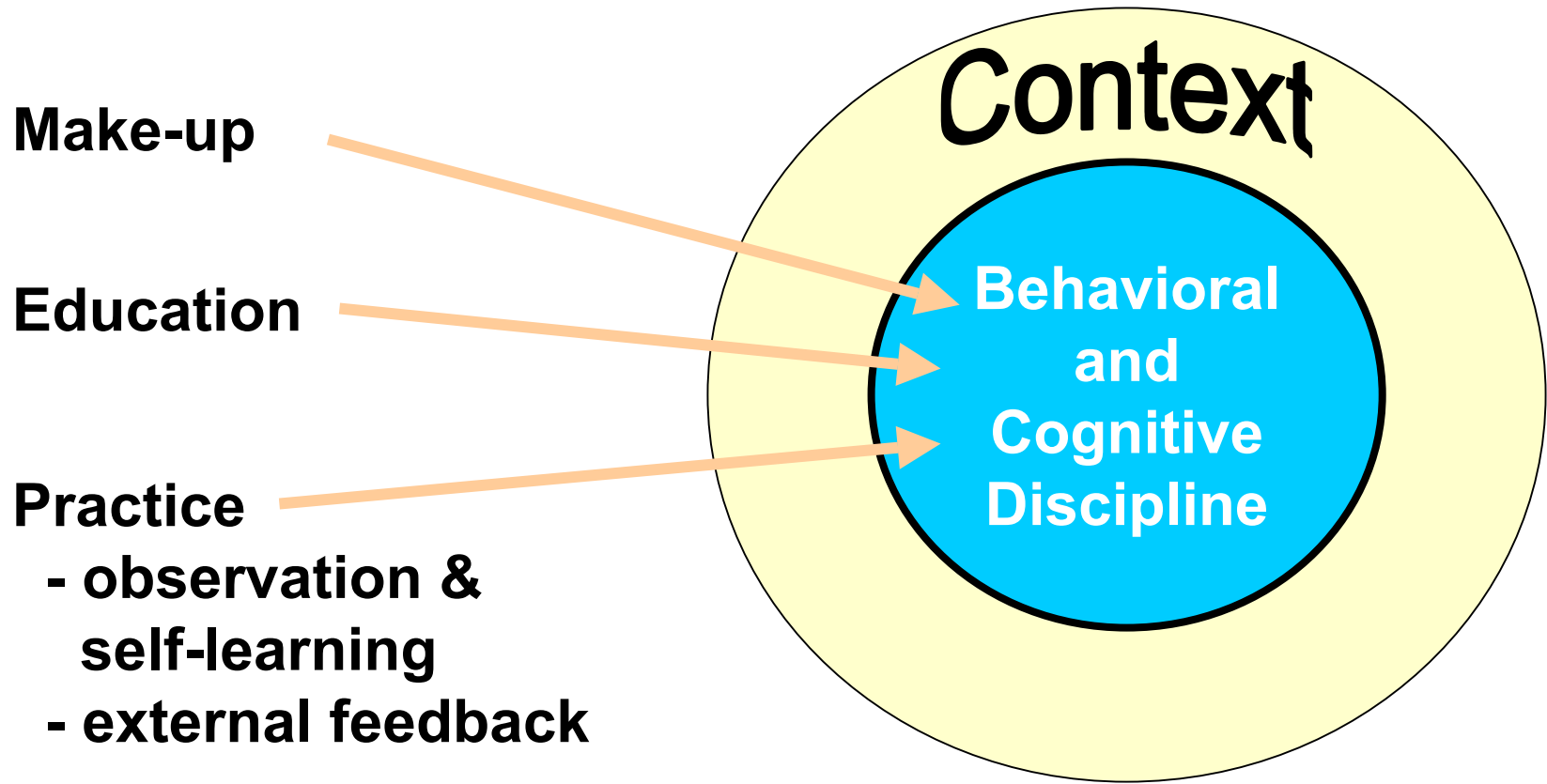


**Digital  
Thinking Inc.**

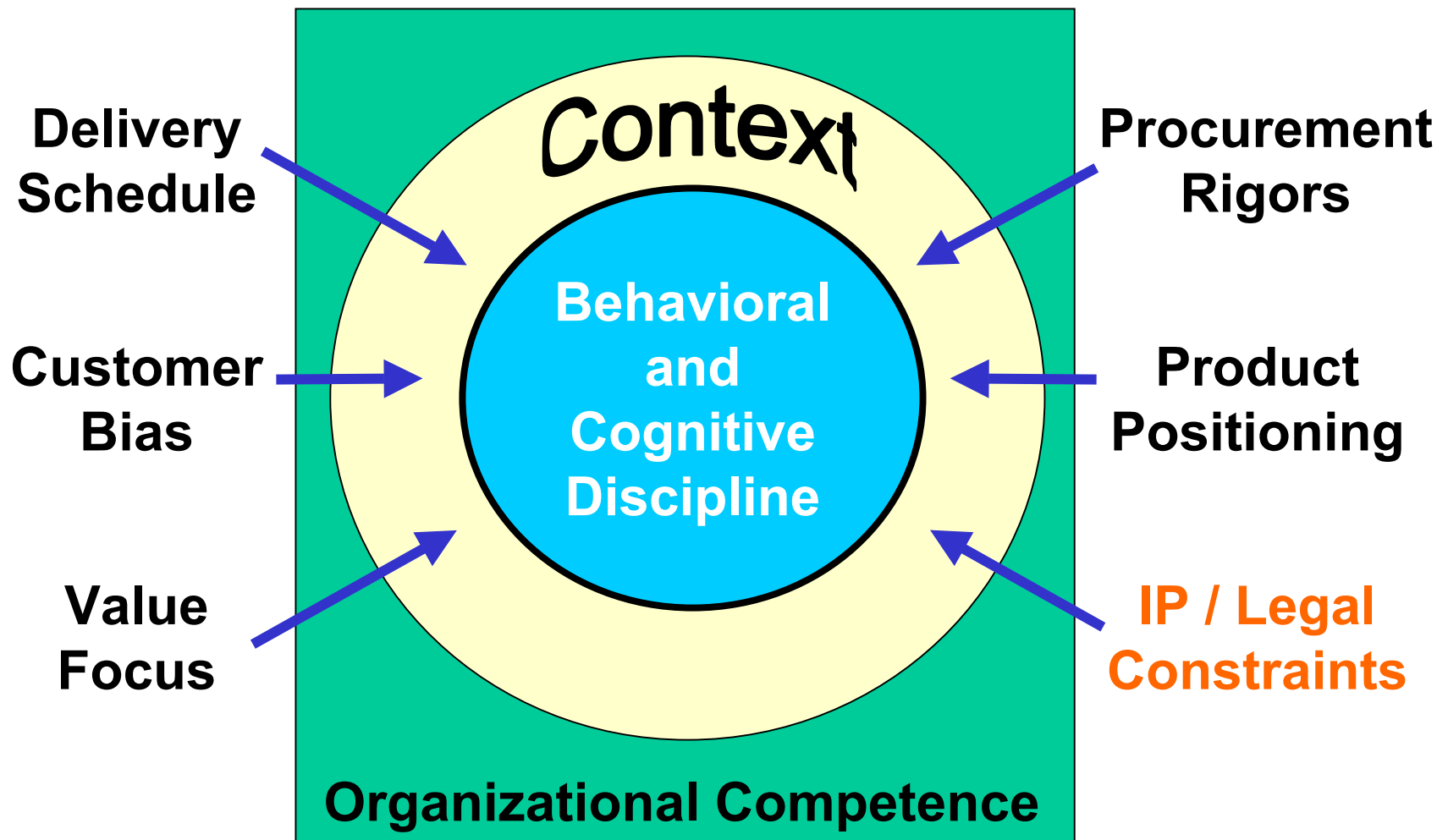
**Don Jarrell**

**don@DigitalThinkingInc.com**

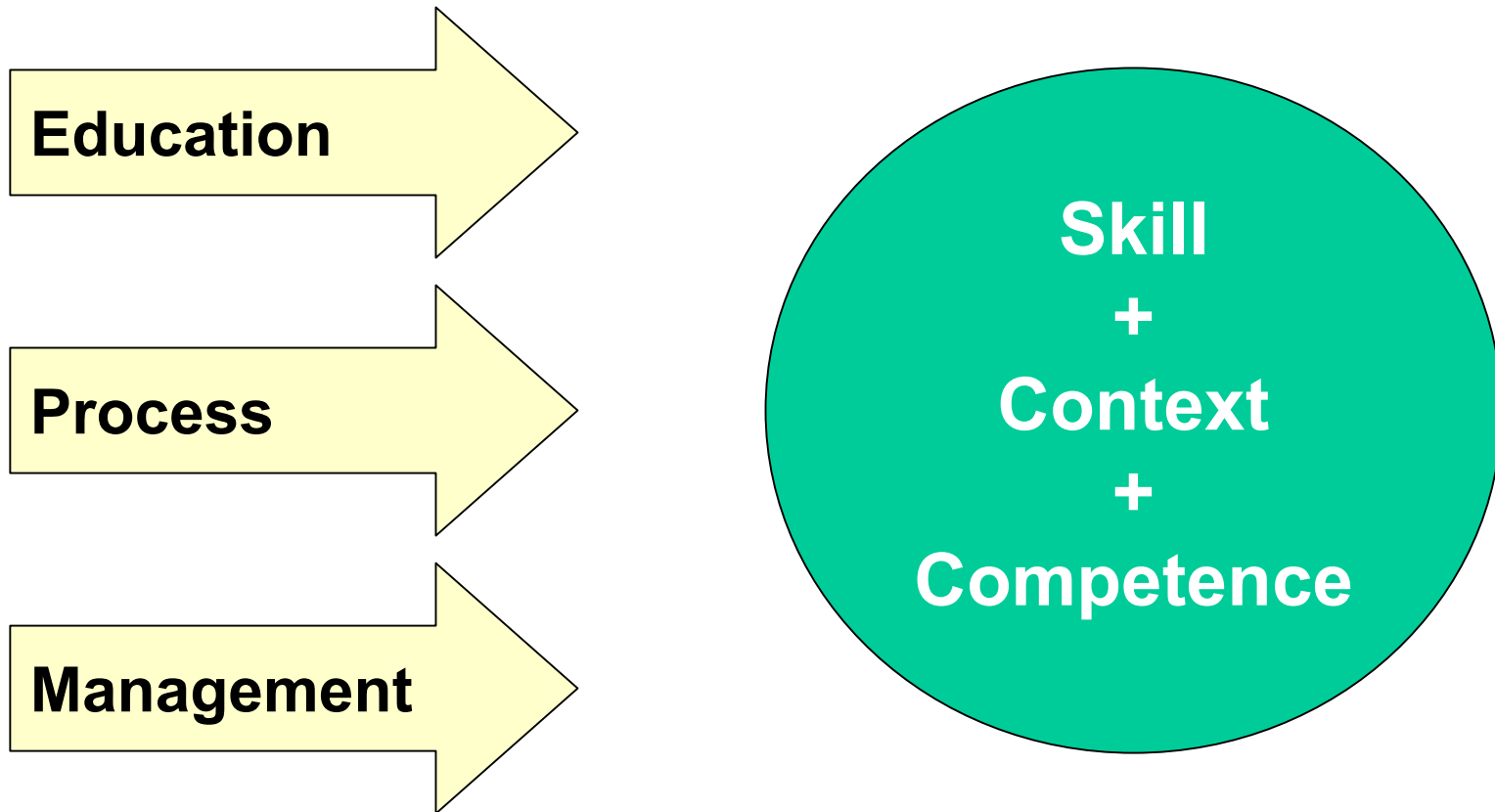
# The Making of an Engineer



# Contextual Elements



# The Making of an Engineering Force

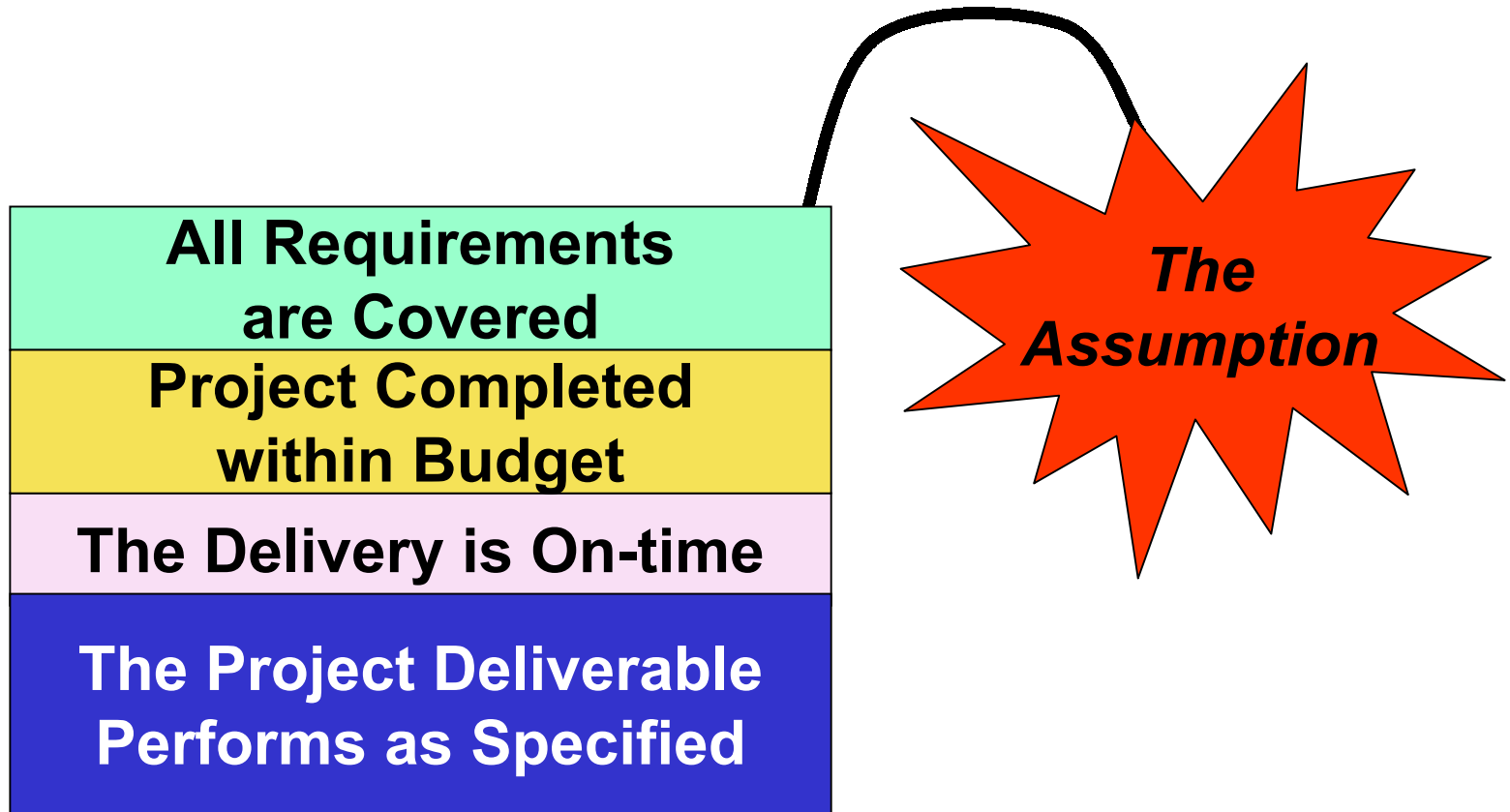


# Context-building Initiatives

- SEI / Common Maturity Model
- Program Management Office
- User groups and workshops
- Industry & Alliance Programs

**... all develop and leverage  
enterprise's brand and core  
competence**

# Does this happen at Metrowerks?



**The  
Assumption**

**=**

**The Project can proceed,  
and the Product can be  
distributed, without an  
Intellectual Property  
problem**

# Potential Impacts

- Fatal
  - Product infringes someone's IP and cannot be implemented
  - Definition of product/project cannot be reconciled with IP issue
- Schedule
  - Work must stop awaiting negotiation or dispute resolution
  - Different components/tools must be selected and work must be re-done
- Cost
  - Licenses/rights are insufficient and will cost more
  - (Worst Case) Cost can exceed entire project/product budget

# Case Studies

- Univ of Michigan – Display Services Inc.
  - Engineering fair showed “best” achievements
- Accenture – Bertelsmann
  - Moral rights stopped commercial T-18 hours
- Alcatel – UCSC
  - Dire need for license increased price
- ASU survey
  - Find the GPL constraints ...

# Types of Intellectual Property

- Patent
- Trademark
- Copyright
- Trade Secret

# Patent

- Need good patent attorney from the start
- Must be useful, novel and non-obvious
- Covers ideas behind system, material, molecule, GE cell, business process
- NOT a right to produce, but a right to exclude
- Popular business model is largely about improvements, leading to cross-licensing



# Patent Improvements & Cross Licensing



- Patent issued to Company A
- Claims: ‘Keeps body off floor’; ‘comfortable’
- Company A builds & sells

- Patent issued to Company B
- Claims: ‘Falls over less than 3-legged stool’
- **Can Company B build and sell ?**

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# Trademark

- Can be asserted without registration ( <sup>TM</sup> )
- ® symbol means registered with PTO
- Can be a mark, phrase, made-up word
- Many organizations risk losing ability to protect trademark by improper or inconsistent usage

# Copyright

- Alive & well despite Napster & ElcomSoft
- Don't let eager creative engineers fall prey to popular arguments about copyright versus technology, or misapplied Fair Use
- Does everyone really understand “Copyleft” and Open Source ?
- Copyright in practice is endangered today

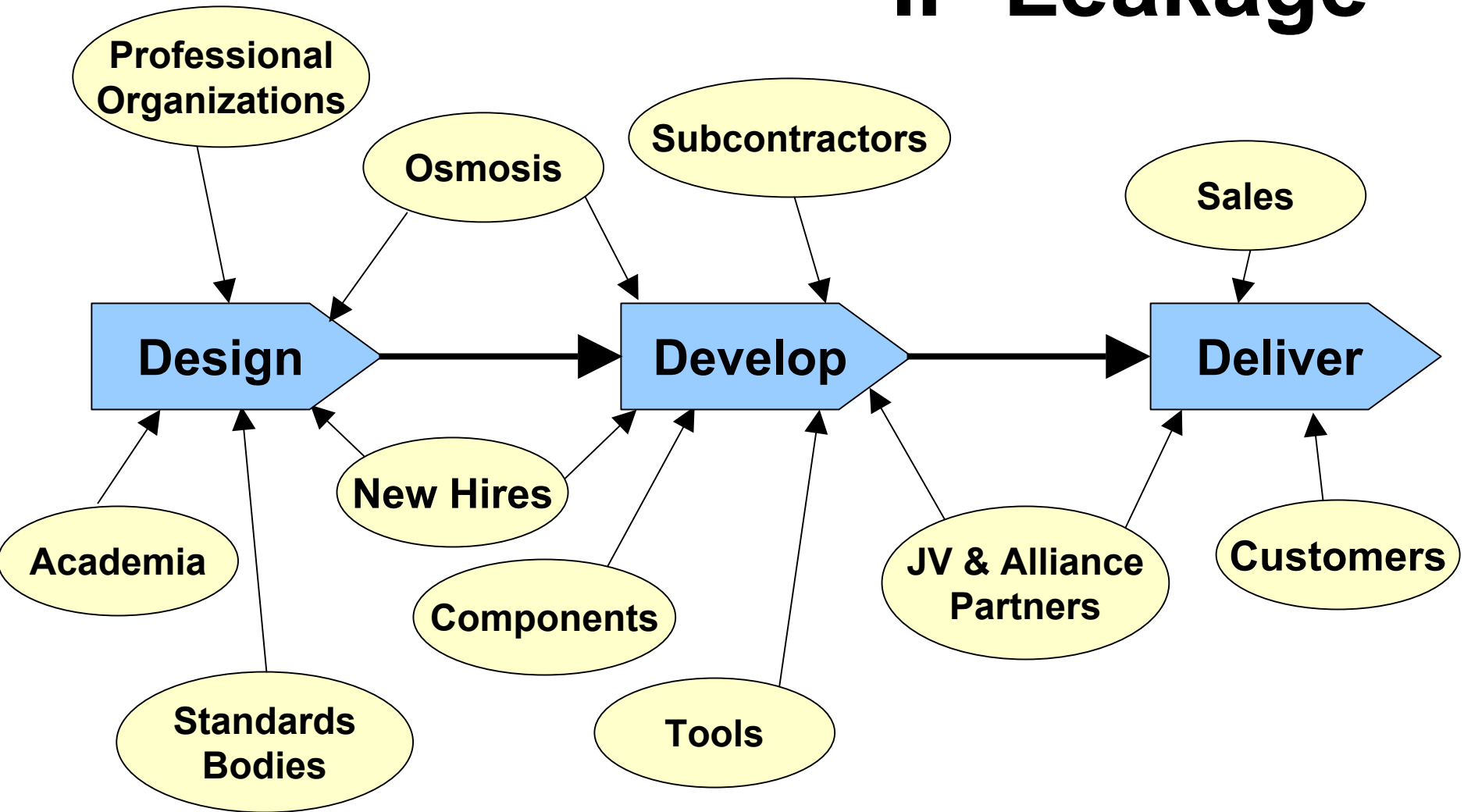
# © Quick Bits

- Automatic upon creation; does not require registration; Federal law: US territory / US citizens
- Expression, not ideas
- Held by company if creator is employee; need to know “Work for Hire” !
- Does NOT dictate any distribution/use terms
- Basic principles apply in most of world through treaties
- Complex extensions of copyright are beyond scope of this presentation

# Trade Secret

- Operative word is “secret”
- Horse/barn door scenario very typical
- Less structured and most likely for disputes
- Critical regarding joint venture projects or those with sub-contractors
- Very prone to IP “leakage”

# IP Leakage



# ***“Perfection of Licensure”***

- Like *Perfection of Title* in real estate sale
- Confirms rights and “cleanness” in product’s IP
- Components are:
  - Education (awareness of IP, leakage and needs)
  - Process (confirm license terms, use & compliance)
  - Management (commit, promote, monitor)
- Can be transactional; better as ongoing process

# *PoL* Serves Layers of Objectives

- Business Management
  - Cost/liability protection, industry standing, valuation
- Product Management
  - Brand strength, customer confidence, relationships
- Program Management
  - Quality, schedule, cost and risk
- Engineering Management
  - Value focus, facilitated procurement, problem avoidance

**Questions: pointed -or- broad**

**Thank you.**