# Navigating the Path from Research to Marketplace at Illinois

Svetlana Sowers
Senior Technology Manager

Office of Technology Management (OTM)
CEE598: Visual Sensing class

# OTM Overview

The Office of Technology Management's **mission** is to encourage innovation, enhance research, and facilitate economic development through the transfer of intellectual property.
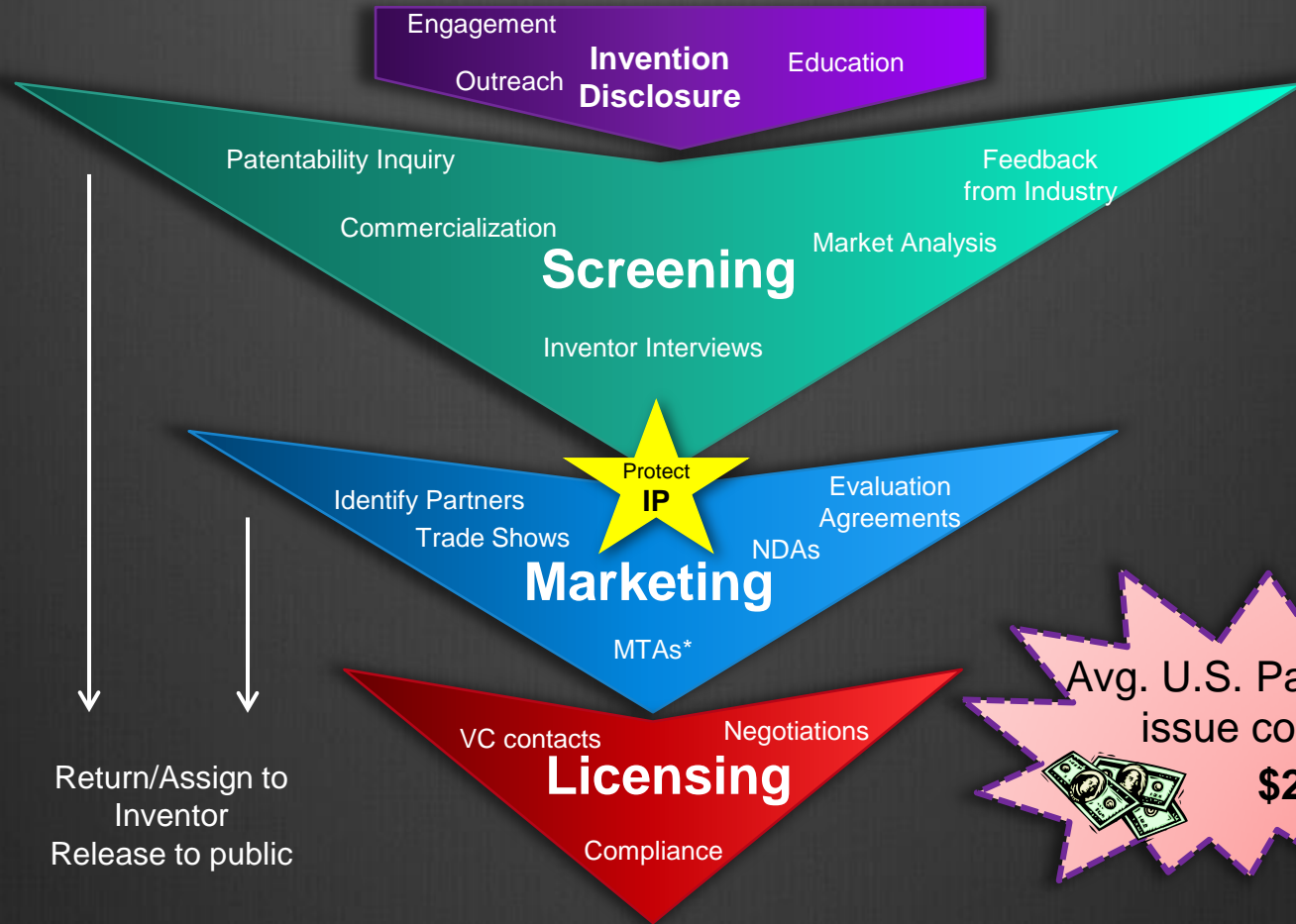
## OTM Profile

- Technology Managers
- Licensing/Legal
- Patent Agents
- Marketing
- Business and Administration
- Interns

## Partners

- Faculty, Staff, Students
- Research Park, TEC
- Venture capital firms
- Industry
- OSPRA

# Technology Transfer Process

# Market Analysis

- Identifying and defining market opportunities for the new invention.

- At the OTM we have a huge and diverse product base and many products have no market (yet).

- The target market is the specific group of customers that a company aims to capture.

- Inventor interview to best determine the most appropriate applications and therefore most likely market.

- Define the potential product and industry that would sell that product and then narrow in on the market size and information.

# Market Analysis

- Library ([www.library.illinois.edu/orr](www.library.illinois.edu/orr))
  - type in the name of the database

- Frost & Sullivan - Great Place to start
  - Profiles of technologies, companies, and markets

- Gartner
  - Profiles of technologies, companies, and markets

- IBISWorld
  - All industries, simple Market information

- OneSource
  - Industry profile, Company profile, Analyst reports

- FDA ([www.fda.gov](www.fda.gov))
  - Good for drugs or health related technologies

# Market Research Tools

- Library

  - www.library.illinois.edu/orr

  - www.library.illinois.edu/bis

- Build Company Lists and Profiles - Library

  - *OneSource

  - *LexisNexis Academic Universe

  - PrivCo (information about private companies)

  - Mergent Horizon (profiles: customers, suppliers, partners…), Capital IQ

  - Hoover's Academic

# Market Research Tools – Cont.

- Market research and industry reports – Library

  - *IBISWorld

  - *Frost & Sullivan

  - Freedonia

  - *MarketLine

  - Mintel


- Margins, financial ratios and financing - Library

  - OneSource

  - PrivCo

- Annual surveys

  - www.census.gov/mcd


*Good places to start research*

# Market Research Tools

- Companies
  - U.S. Securities & Exchange Commission http://www.sec.gov/answers/proxyhtf.htm
  - NAICS code lookup www.naics.com
- Health

# Commercialization Analysis

- Even though a technology may be patentable and marketable, it is possible the technology could face other barriers to commercialization.

- Barriers to Commercialization - safety or regulatory concerns, industry hurdles
  - Regulatory approval required for commercialization
  - Export controlled
  - Level of development
  - Ahead of its times
  - Ownership issues (i.e. joint ownership with another institution/company/individual)
  - Freedom-to-operate issues
  - Unengaged/unsupportive inventor(s)

# Business Plan

- Business Plan:
    - When you start a company
    - When you need financing
    - When you get new management
    - When market change
    - When company develops new product and technology
    - When you company has crossed a threshold (100th employee, $1M revenue)

- Lean Startup by  Steve Blank (HBR)

- Google it

# Structure of the Pitch (12-20 pages total)

# Business Plan



» **Intro:** Define the company, business, service or product in a single sentence.

» **Team:** Identify a core group of talent that can execute on the next set of milestones.

» **Opportunity:** Establish the need for your company's solution and the size of the market.

» **Solution:** Demonstrate how you will solve the problem and validate your differentiation.

» **Competition:** Identify your competitors, validate your differentiator.

» **Business Model:** Explain how you will generate revenue, show us what you've accomplished to date, and make future forecasts.

» **The Ask:** Ask for the order and outline what you need from us to make your business a success.

# Opportunity (2-5 pages)

INTRO · TEAM · **OPPORTUNITY** · SOLUTION · COMPETITION · BUSINESS MODEL · THE ASK

## Tell Us:

» State the problem; describe the pain.
» Why does the problem persist?
  * Define recent trends that make your solution possible.
  * How is it currently addressed?
  * Why are we at an inflection point now?
» Identify the market size.
» How does this market change and grow over time?

(Clear) **Problem**
+ (Large) **Market**
———————————
= (Great) **Opportunity**

## Key Objective:

Establish the need for your company's solution and convince us that solving the problem is worth the effort.

# Business Model (2-4 pages)



## Tell Us:
» How will you make money?
- Revenue model & metrics
- Pricing, average account size, lifetime value, churn, views, uniques, registered users, sub base, etc.
- Sales & distribution model, customer pipeline, wins and metrics

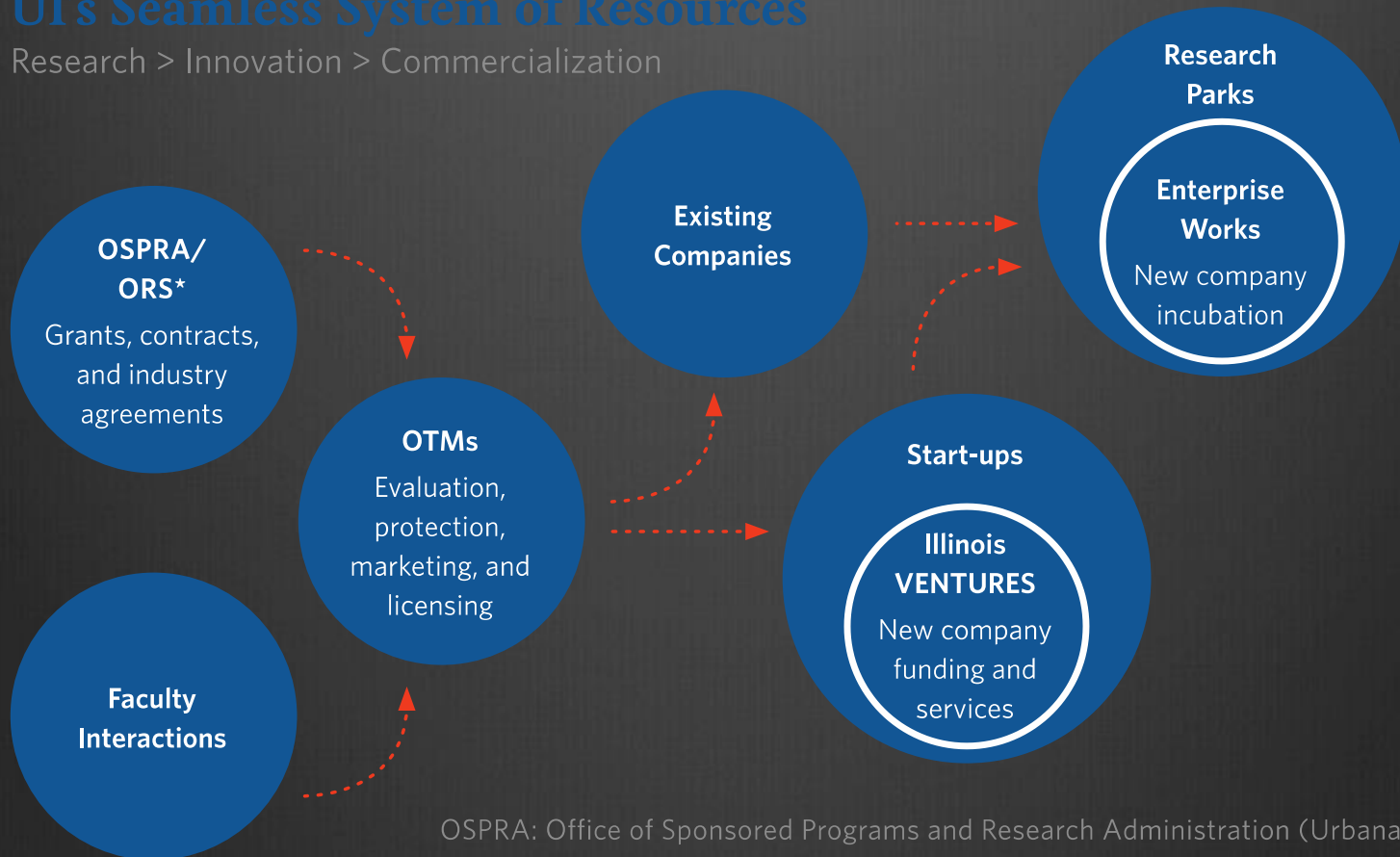» What milestones are you going to realistically hit with the new capital?

## Key Objective:
Tell us how you will generate revenue; show us what you will accomplish in a given period of time.

# Commercialization System at UI

**UI's Seamless System of Resources**

Research > Innovation > Commercialization

**OSPRA/ ORS***
Grants, contracts, and industry agreements

**Faculty Interactions**

**OTMs**
Evaluation, protection, marketing, and licensing

**Existing Companies**

**Research Parks**

**Enterprise Works**
New company incubation

**Start-ups**

**Illinois VENTURES**
New company funding and services

OSPRA: Office of Sponsored Programs and Research Administration (Urbana);

ORS: Office of Research Services (Chicago)

Innovation Matrix
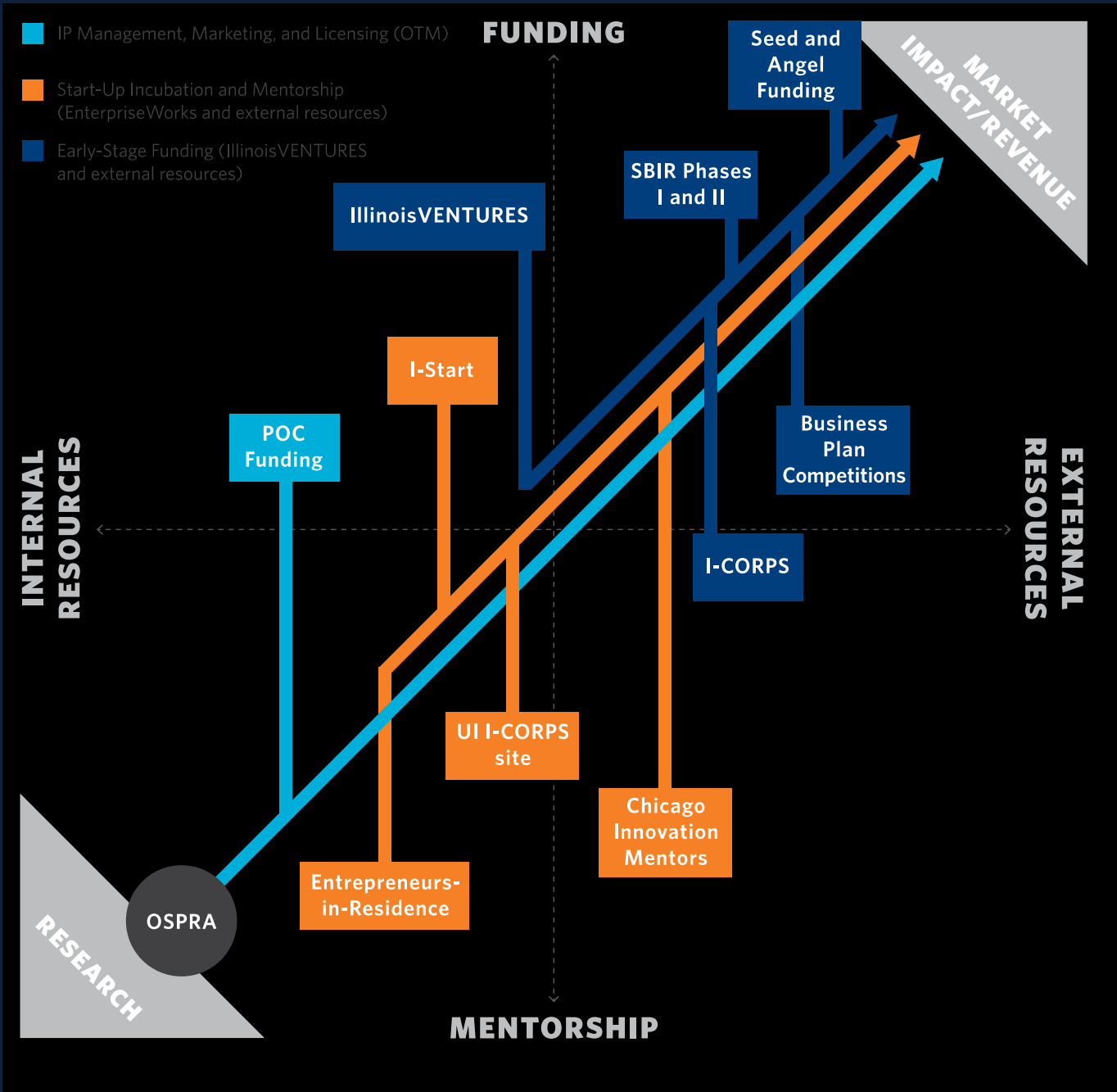
# Research Park at the University of Illinois

- Technology-based businesses can work with the research faculty and students on collaborative research and access UI services.

- 90+ companies and employs people in high-technology jobs

- ~ 400 UIUC student employees work year round for companies in internal corporate R&D and product development programs.

- 2011 **Top 10 Start-up Incubators** to watch for, by **Inc.com**

- 2010 One of 10 US Incubators **That is Changing the World, by Forbes.com**

- Named in 2011 by AURP as **"Research Park of the Year"**

# Resources in the Research Park and on Campus

- EnterpriseWork  Incubator: http://researchpark.illinois.edu/
    - i-Start Funding
    - EIRs
    - Student Shared Services
    - Mobile Development Day
    - i-Corps site

- Entrepreneurship Portal: http://entrepreneurship.illinois.edu/forum/

- TEC http://www.tec.illinois.edu/
    - Innovation LLC (Living Learning Community)
    - Social Fuse
    - Classes, Competitions

# Mobile Applications

- Signed legally approved agreements with Apple and Google for iOS and Google Play development.
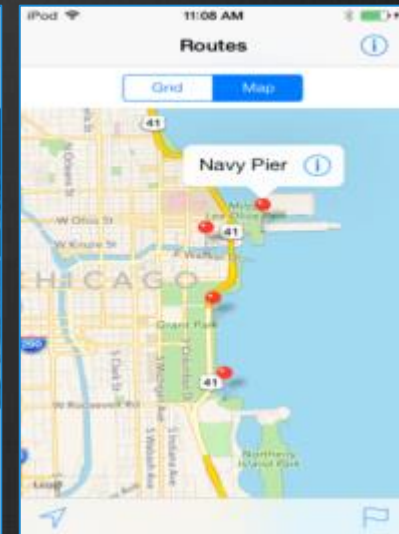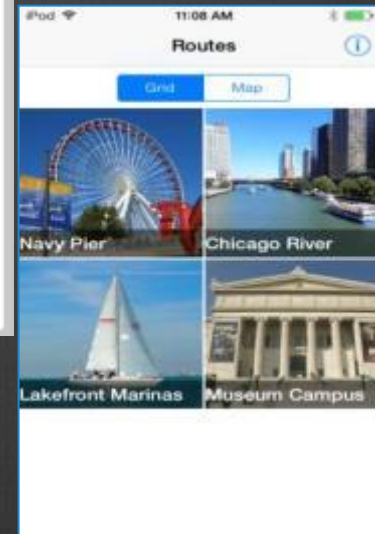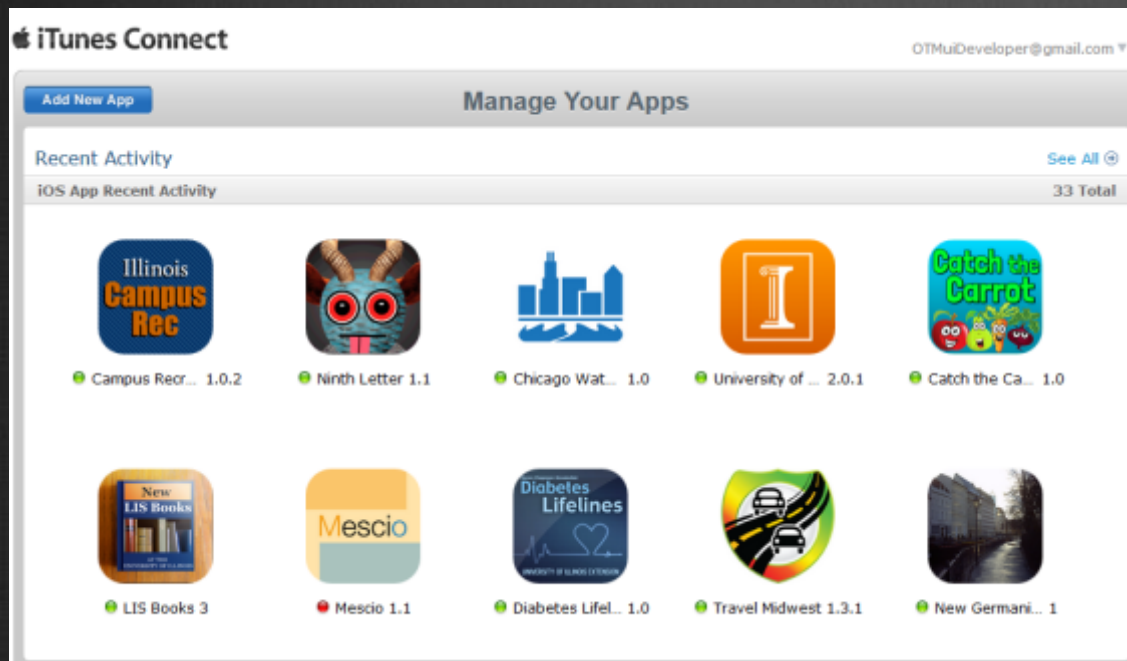
# ShareTheVision Tech Showcase



SHARE THE VISION
OCTOBER 10–11, 2013

- 35 faculty presented breakthrough research
- Panel discussions with venture capitalists and corporate partners.
- Attendees from across the country: Chicago, St Louis, Indianapolis, San Francisco, Boston, Seattle, Minneapolis, Boston, Detroit, Milwaukee and more
- Tours of start-up companies in EnterpriseWorks

## >200 attendees & participants

# Illinois Startups and Cutting-edge IP

# Licensing Software

# NCSA Advanced Visualization Lab
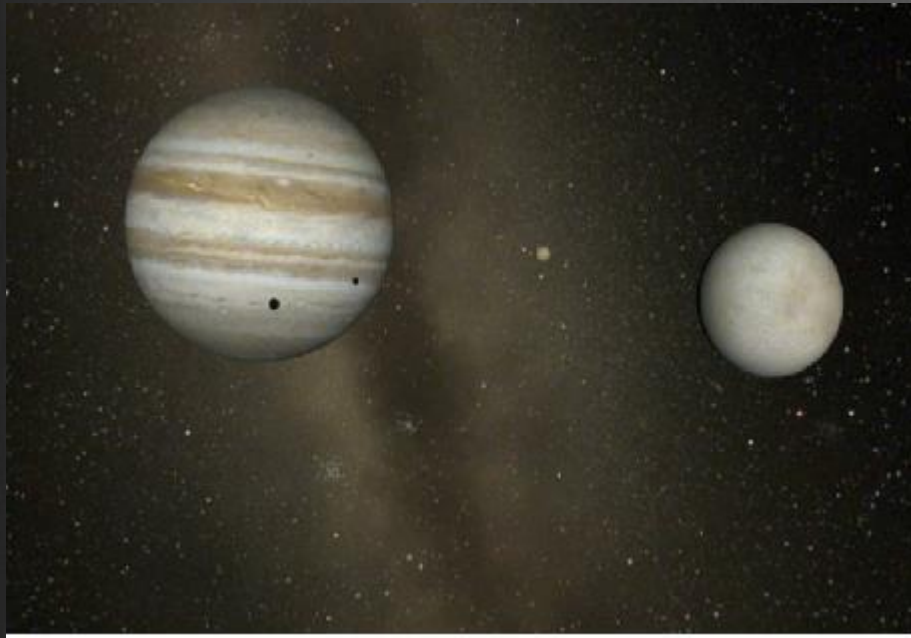


Screenshot of Jupiter and its moons, taken from a scene in "The Europa Report"



Data provided by
Andrea Ghez and Sylvana Yelda, UCLA
Obtained with the W.M. Keck Telescopes

Visualization by
Stuart Levy and Robert Patterson
National Center for Supercomputing Applications
University of Illinois at Urbana-Champaign

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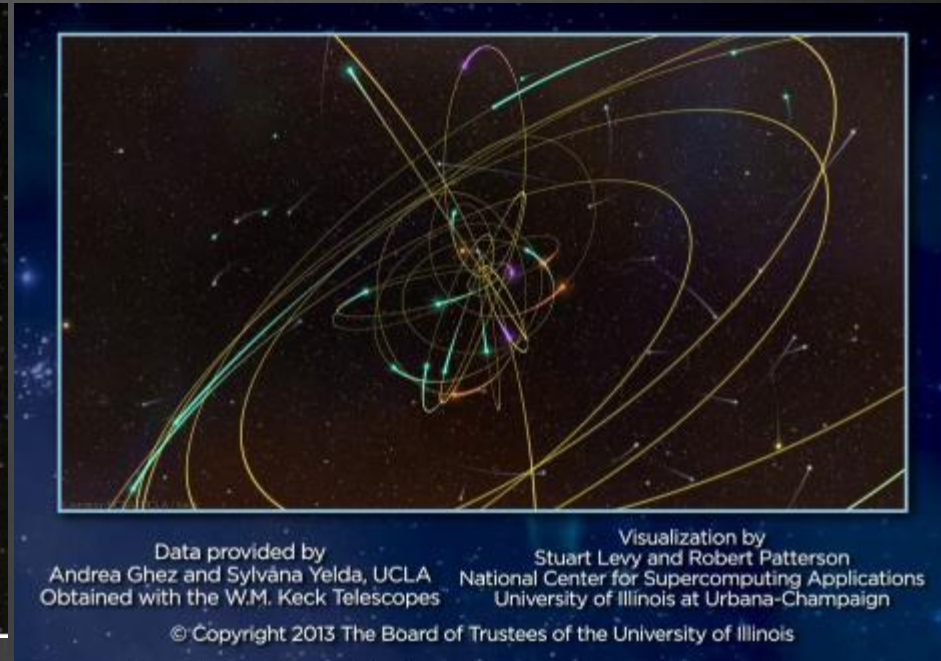
Screenshot of "Life and Death of Stars", an online class by "The Teaching Company".

# Questions?

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## www.otm.illinois.edu

svsowers@illinois.edu

@ILinnovations

## Market Research Basics

**Places to Look for Information on a Company**
**Company Profiles/Lists:**
- ABI/INFORM Complete details (in process) | Go to the resource
- American Firms Operating in Foreign Countries (Uniworld) details (in process) | Go to the resource | (click on "Search Uniworld Online" in the toolbar)
- Foreign Firms Operating in the United States (Uniworld) details (in process) | Go to the resource | (click on "Search Uniworld Online" in the toolbar)
- ISI Emerging Markets details (in process) | Go to the resource
- LexisNexis Academic Universe details (in process) | Go to the resource
- MarketLine details (in process) | Go to the resource
- Mergent Horizon details (in process) | Go to the resource
- Mergent Online details (in process) | Go to the resource
- OneSource details (in process) | Go to the resource

**Articles:**
- ABI/INFORM Complete details (in process) | Go to the resource
- Business Source Complete details (in process) | Go to the resource
- LexisNexis Academic Universe details (in process) | Go to the resource

**Analyst Reports:**
- LexisNexis Academic Universe details (in process) | Go to the resource | 1) Click the Sources tab in the top left, 2) type Investext in the Find a Source box on the right and click Go, 3) check the box next to Investext and click OK-Continue
- OneSource details (in process) | Go to the resource

**Places to Look for Information on an Industry**
**Industry Profiles**
- Business Monitor International (BMI) Industry Reports details (in process) | Go to the resource (under the Browse tab in ABI/INFORM Complete)
- Census Bureau Economic Programs details (in process) | Go to the resource
- First Research details (in process) | Go to the resource
- IBISWorld details (in process) | Go to the resource
- MarketLine details (in process) | Go to the resource
- Mergent Horizon details (in process) | Go to the resource
- Service Annual Survey details (in process) | Go to the resource
- OneSource details (in process) | Go to the resource
- Reuters Business Insights details (in process) | Go to the resource

**Articles:**
- ABI/INFORM Complete details (in process) | Go to the resource
- Business Source Complete details (in process) | Go to the resource

**Analyst Reports:**
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- OneSource details (in process) | Go to the resource

**Find an Expert:**
- Associations Unlimited details (in process) | Go to the resource
- On the UIUC Campus details (in process) | Research at UIUC | Campus Units at UIUC

**Places to Look for Information on a Market**
**Market Profiles:**
- IBISWorld details (in process) | Go to the resource
- Lifestyle Market Analyst (in process) | *Book, available in the BEL Reference section. See sample pages here.*
- SimplyMap details (in process) | Go to the resource

**Stats and Surveys:**
- Statistical Abstract of the United States details (in process) | Go to the resource
- Census Bureau Economic Programs details (in process) | Go to the resource
- American Factfinder details (in process) | Go to the resource
- Online Reference Collection - Polls & Surveys details (in process) | Go to the resource

**Find an Expert:**
- Associations Unlimited details (in process) | Go to the resource
- On the UIUC Campus details (in process) | Research at UIUC | Campus Units at UIUC

**Places to Look for Information on a Technology**
**General:**
- Biotechnology Information Center details (in process) | Go to the resource
- Carbon Capturing Information | Go to the resource

**Profiles of Technologies and Companies:**
- Faulkner's Advisory for IT Studies (FAITS) details (in process) | Go to the resource
- Frost & Sullivan details (in process) | Go to the resource
- Gartner details (in process) | Go to the resource Requires an Enterprise ID to log in

**Articles:**
- EiVillage details (in process) | Go to the resource

**Other**
**Country Profiles:**
- Economist Intelligence Unit details (in process) | Go to the resource
- ISI Emerging Markets details (in process) | Go to the resource

**Consumer Markets and Products**
- MarketLine details (in process) | Go to the resource
- Product Launch Analytics details (in process) | Go to the resource Click on the orange tab "Research for Libraries" in the right margin.
- SimplyMap details (in process) | Go to the resource
- Export.gov Market Research Library details (in process) | Go to the resource

**Mergers & Acquisitions Info**
- MarketLine details (in process) | Go to the resource
- Mergent Horizon details (in process) | Go to the resource

**General Reference**
- Small Business Resource Center details (in process) | Go to the resource