Technology Transfer 3.0

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Tech Transfer 1.0

Exclusive patent licensing

The origin of tech transfer was the need to improve the licensing of human therapeutics funded by the government to large pharmaceutical companies.

What Did TT1.0 Require?

- Someone who could be ~~strong-armed~~ convinced to add licensing to their existing activities, generally from the sponsored research office
- A “technology licensing office”
- Works exclusively with faculty
- Protecting the university against the negative potential outcomes of commercialization

Tech Transfer 2.0

Startups

Universities realized the diminution of high-risk activities in large companies required startups to bridge the “valley of death”.

Yet 97% of all income received is from royalties.

What Did TT2.0 Require?

- New policies
- Some exposure to startup fundamentals
- An ecosystem that is capable of supporting startup companies
- A decrease in risk-aversion
- Works more with industry and business community
- Still need that licensing piece

What is Technology Transfer 3.0?

Relevance

TT 3.0 is the collapsing of boundaries across the university and the holistic support of ideas and entrepreneurial thinking, regardless of their origin. It focuses more on systems and less on functions.

Wait…what?

- Simply put—”Serve the idea”
- At UNHI we have two objectives:
  - Create $1bn in economic impact for New Hampshire in 10 years
  - Get ideas that are inside the university, outside the university by any means necessary

Structure Matters

Corporate engagement, licensing, institutional trademarks, entrepreneurship, a research park, and corporate-facing test labs are **activities, not outcomes,** and share a common goal.

Our shared metrics are engagement with students, faculty/staff, industry, and our regional innovation ecosystem.

Our shared objective is to support the transitions of ideas to the world.

UNH Innovation

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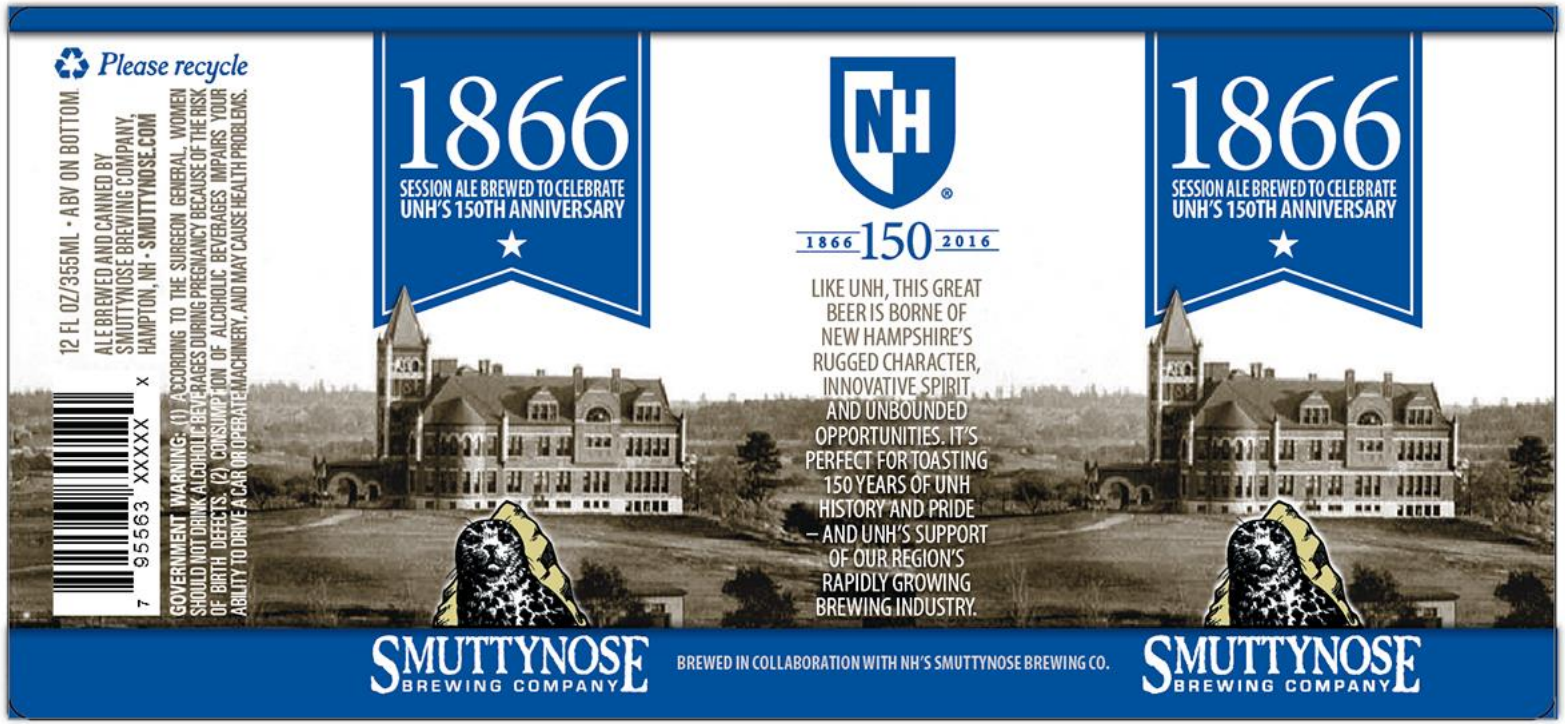
Supporting Entrepreneurship

- “Entrepreneurship” is a toolbox of skills and a way of thinking that applies from early-stage research through startups
- It is the same toolbox regardless of who uses it
- The democratization of content and language has tremendous downstream effects

What do we do differently?

- Students, faculty, and staff experience the same “philosophy” of commercialization, based on the Lean Startup principles
- Language is consistent
- Training programs co-mingle students and faculty intentionally
- Networking events include the entire community
- We encourage risk-taking

Creative Solutions Abound



We serve the ENTIRE Campus

- Creative works (non-patented IP) generates significant revenue for UNH
  - 190 licenses in 2016, more than Harvard/MIT combined)
- Every faculty member can use our services
- We help whether there's revenue or not
- Students are treated just like faculty, except we don't own IP

Perfect alignment

- If we want to generate $1bn in economic impact we have to use the strategy of multiple strategies
- Tech transfer will only be relevant if it's relevant to **all** stakeholders
- You're probably only talking to 20% of the possible people you can serve
- Encourages interdisciplinary thought and action

What Does the Future Hold?

The solution to the biggest challenges require everyone to talk to each other.

STEM is over. STEAM is over.

Education is back!

Program 1: The Research “Sandpit”

- A truly global idea:
- Created in Scotland (University of Edinburgh)
- Exported to Australia (University of New South Wales)
- Imported to/~~stolen by~~ the United States (University of New Hampshire)
- Repatriated to Europe here to you!

What the Heck is a “Sandpit”?

- Maximum exposure in minimum time
- Promotes high-volume meetings over detail
- Simply, it’s “speed dating” for solutions

The UNH Sandpit

- Choose incredibly broad topic areas
  - Aerospace and Defense
  - Marine
  - Data
  - Agriculture
  - Biosciences
  - Behavioral Health
- Invite in any member of the regional ecosystem to participate in the discussion

Sandpit Participants

- Faculty
- University staff/resources
- Industry
- Local and regional government

- Each participant's badge is given a specific colored "dot" to denote one of the four categories from afar

Sandpit Structure

1. 10-15, 90 second personal introductions-–no exceptions, no slides
   - University: who I am, what research area, what are the problems I like to solve
   - Company: who we are, what is our industry area, what are the 2-3 most pressing challenges that need to be solved
   - Government: who we are, how can we help further solutions
2. 30 minutes of networking, broken into 5 minute increments
3. Repeat steps 1-2 as many times as needed to get through everyone
4. Go home

Results

- Drives authentic engagement between industry and university based on a shared interest in the subject matter
- One attendee relocated to NH in part because our university showcased the many ways we can be helpful
- Average event creates 200 “meetings”; peak event estimated at over 800!
- Each sandpit has created 3-5 leads for projects; at least three partnerships created

Results

- Instant relevance to both internal and external partners
- Like the Lean Startup model, sandpits are agnostic of technical expertise or area
- Great media coverage creates a virtuous cycle

Favorite Quote-ish

“I only came today to see this thing fail miserably. But I have to admit it worked and worked really well. I even had fun.”

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Why Is This Entrepreneurial?

- Faculty are seeing real-time industry problems and thinking about solutions
- We encourage multidisciplinary discourse in the room
- Intra-faculty partnerships are often created

Program 2: i2Passport

- Co-curricular program created by our Entrepreneurship Center
- Participatory—students receive “stamps” for participating in entrepreneurial activities
- No competition in events; show up and get credit
- Speakers, hackathons, skills building, etc

What Was the Problem We Needed to Solve

- In the US, college debt is one of the main reasons students don't start companies
- 70% of students with debt >$25,000 will never start their own business or work in a startup
- UNH's average student debt = $27,000

- i2Passport gave awards in the form of student debt repayment

i2Passport Results

- 400 students per year participate
- 60% women!!!
- 35% first-generation college students
- Participation from all seven colleges

- Currently four student teams are raising angel investment $$$

Program 3: I-Corps

- Focused on advancement of technology to commercialization using Lean Startups
- TTO is the driver of program
  - Licensing: Finds ideas
  - Corporate engagement: Finds mentors
  - ECenter: Finds entrepreneurial leads
- Faculty- and student-led teams participate on equal terms

What's Next?

- As a direct result of the success driving commercialization of ideas, UNH is pursuing the creation of a research park
- Concept is broad, ranging from an accelerator, health care teaching clinic, corporate HQs, and even potentially a brewpub
- To reach $1bn in economic impact we must be broad with our thinking and who we serve

Supporting entrepreneurship means meeting people where they are, giving them the tools to decide what they want to do, and demystifying the process.

You must encourage risk and accept that failure is part of the process.