



IGNITING INNOVATION

*Open Innovation best practices for strengthening  
University – Industry partnerships*  
Tim Bernstein, CEO, yet2

# University-Industry deals can have huge and lasting impact

## Overview – Deal thru yet2's Open Innovation Portals

Kobayashi Pharmaceuticals – a Japanese manufacturer of over-the-counter pharmaceutical, personal care, and nutrition products – partnered with yet2 to launch their Open Innovation portal to seek partnerships with Japanese companies to co-develop new formulations, functional ingredients, and processing technologies.

## Need

- Kobayashi is seeking Physical, Chemical, or Biological technologies to accelerate the culture production of **Monacolin K**, a functional metabolite found in **bright red yeast rice** that is effective against cholesterol suppression.
- The current culture process is not optimal for large scale production: it takes 45 days to produce 2% Monacolin K by weight, requiring a large amount of starting raw material

## Approach

- Working closely with Kobayashi, yet2 drafted the Need document and published it in Japanese and English on the portal
- yet2 marketed the need to the yet2 network in Japan, resulting in multiple submissions from Japanese companies

## Results

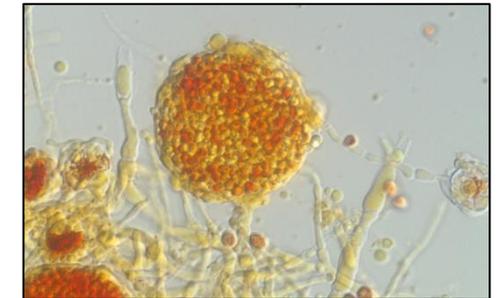
Kobayashi entered into **joint research agreements with 2 universities:**

- **National University in Central Japan** to commercialize unique biological approach (Approach A)
- **National University in Kyushu** to commercialize a different biological approach (Approach B)

Kobayashi is evaluating a third solution, a unique water generator technology from a major auto parts manufacturer



[Kobayashi's Open Innovation Portal](#)



Red yeast rice



**Tim Bernstein, CEO, yet2**  
Technology Scouting  
*Bringing Companies to Impact*

## 25 years studying Universities and Industry:

### Managing the University Technology Licensing Process: Findings from Case Studies

David H. Hsu<sup>\*</sup>  
Tim Bernstein<sup>\*</sup>

*University technology licensing offices ("TLOs") face a dynamic environment in which the number of technology disclosures is rapidly increasing while the available resources for licensing technologies do not keep pace. Adopting new, strategic plans for licensing is therefore vital. This paper develops an analytical framework for the licensing process. It then presents evidence from 14 case studies and numerous interviews. We conclude that while TLOs have vastly improved since 1980, they have an opportunity to generate significant additional public value. Drawing on the analytic framework and case studies, the paper concludes with recommendations to help TLOs continue to improve their licensing strategies in this challenging environment.*

#### I. INTRODUCTION

The number of university technology licensing offices has increased tremendously over the past seventeen years. One important cause of this growth is the 1980 Public Law 96-517 (the "Bayh-Dole" Act), which allowed universities to receive and assign intellectual property ownership rights for inventions arising from federally funded research. Consequently, university patenting and licensing activities have steadily increased since

[8] David H. Hsu and Tim Bernstein (1997). "Managing the University Technology Licensing Process: Findings from Case Studies," Journal of the Association of University Technology Managers, Vol. 9, pp. 1-33. Japanese translation published as a Nara Institute of Science and Technology report.

# Agenda

- *yet2* Overview
- University/Industry partnerships – Case studies
- *yet2* insights for institutionalizing
  - Building trust
  - Spaces for complementarity
  - Incubators

## OPEN INNOVATION & TECHNOLOGY SCOUTING CONSULTANTS

**yet2 are experts at harnessing OI to ignite corporate innovation through to Impact.**

20 years' experience across technology scouting, IP, business development and ventures.

Unique cross sector expertise from our global team and 50+ strong global client base.

Strong global networks plus sophisticated methodology for partnering nimbly with our large-co clients, enables us to deliver uniquely tangible impact.

We understand the nuances of deal making between small and large companies and **oversee 10-15 deals for clients annually.**



Tech Scouting + OI Portal Services

**Topic Specific Scouting (TSS)**

**Mini Search**

**Strategic Deal Flow (SDF)**

**Innovation Tours/Pitch Days**

**Innovation Portal Hosting**

Description

**Targeted, specific technology parameters to solve an existing need**

**Deep dive around one technology or capability**

**Strategic, broader topic areas, e.g. core business / innovation topics**

**2 or 3 day virtual or F2F meetings with senior, decision-making executives**

**OI Portal hosting, management, and submission filtering**

Typical Engagement

3–4-months, with near/mid-term focus

4-6 weeks

12+ months, with longer-term focus

4-6+ months to plan tour / pitch day

Annual SaaS

Out-licensing + Patent Buying

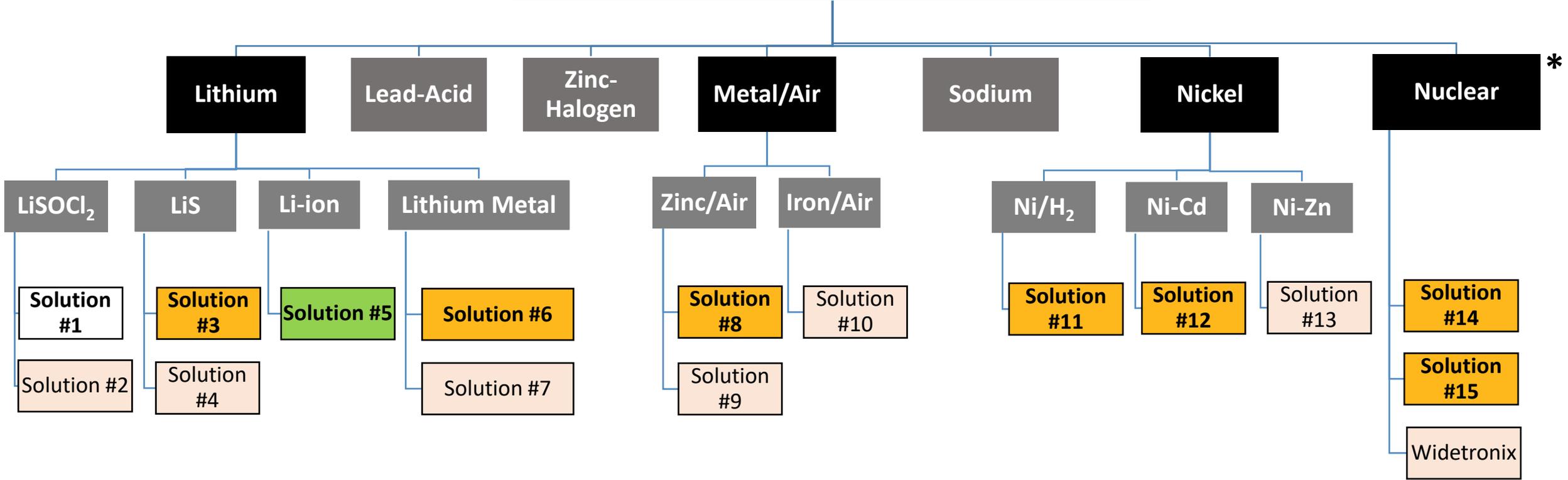
**Technology Licensing & IP Acquisition**

**Confidential, anonymous service to sell or acquire patents to complete packages of technology and know-how**

# Example yet2 SolutionScape

New	Highly Interesting "A"
Interesting "B"	On Hold/ Rejected "C"
	Not profiled yet, just FYI

## Electrochemical Energy Storage



\* Not truly secondary cell



## EZ BUTTON

### ACCESS INNOVATION WITH EASE & SPEED

EZ Button allows yet2 to conduct your small time-critical analysis, searching and project needs in one simple service.

Instead of paying for each of our services individually you simply pay a single annual fee (invoiced quarterly) which gives you access to all of our resources until you reach your agreed limit.

#### OUR COMMITMENT

- ✓ Start your project with 8 business hours
- ✓ A dedicated contact at yet2 with full authority to accept work
- ✓ Decision in 1 business hour
- ✓ Roll over unused hours



ezbutton

# yet2 Newest Innovations: Open Innovation Training

- Built on 21-years' of experience working within OI systems and facilitating thousands of engagements/hundreds of deals on behalf of large company clients
- Equipping practitioners with the mindset, knowledge, and best practices around Open Innovation (OI)
- Offering eight training modules across four core topics:
  - *Overview...building a foundation in OI*
  - *Lowering the hurdles to getting started and to partnering with external companies*
  - *Protecting while transcending the corporate boundary*
  - *Getting to deal*
- Designed to avoid “content overload” - training is a mix of yet2 case studies, exercises and supporting content with the goal of applying key learnings in practice

## OI Training Module Framework



PURPOSE/  
LEARNING  
OBJECTIVES



KEY LEARNING  
TOPICS



CASE STUDIES/  
ACTIVITIES



MODULE  
SUMMARY

# Global Reach

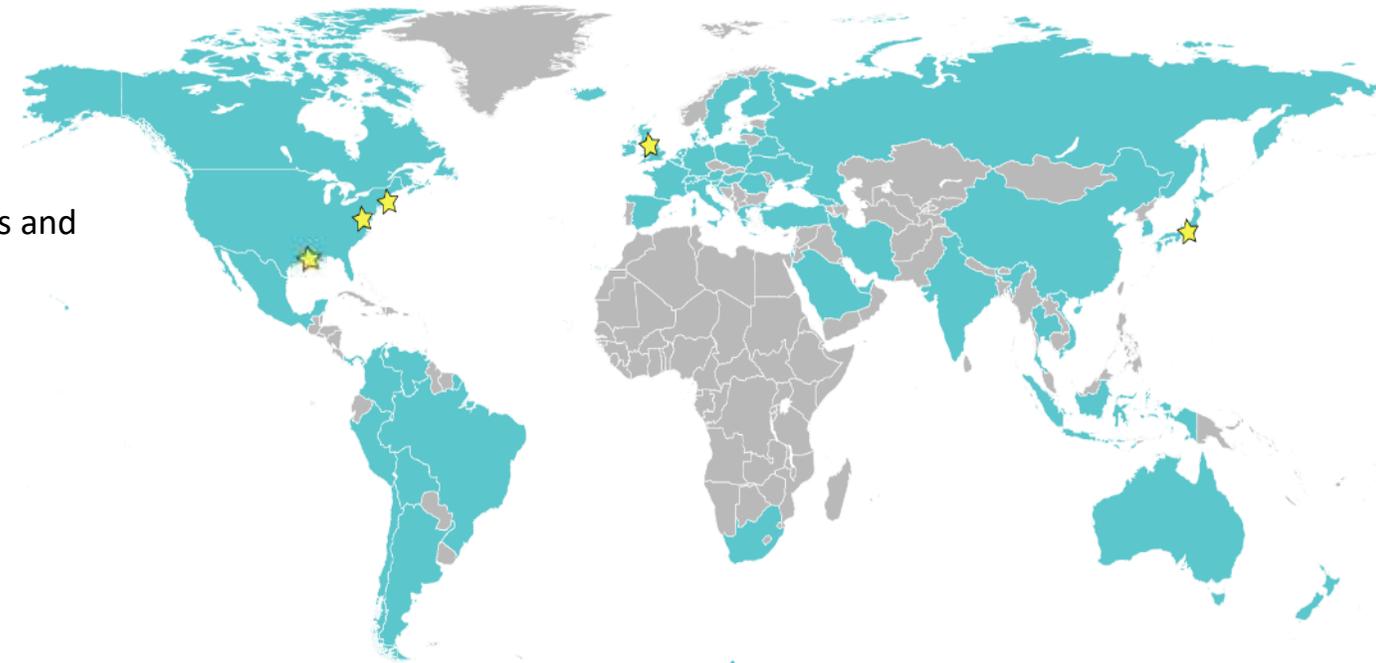
Always interested in new network partners around the world!

## Direct Targeted Scouting & 'Rolodex' Relationship based channels

- **yet2 competencies technology database** – Over 20 years of OI & technology scouting.
- Established ventures network & 30,000 Small-Medium-sized companies.
- **Relationships** borne of over 10,000 introductions between buyers and sellers (including Fortune 500, SME, University, Research, VC).
- Proactive experts reach out to new opportunities identified by experienced *yet2* scouts.

## Broadcast Channels

- *yet2* Active Projects Pages (formerly *yet2* Marketplace)
- Syndication partners – e.g. Innoget, NASA Tech Briefs
- 800+ Global Broker Partners
- Online Technical networks/Social Media (20,000+ reach)



*yet2* Network

Highlighted Areas: Location of *yet2*'s 800+ Global Broker Partners

★ *yet2* Global Offices

# yet2's Client Relationships

Our clients include global Fortune 500 companies as well as US and other Government.



## What our clients are saying:

I felt that yet2 was able to put us in touch with areas of the industry that we had not encountered in previous networking or research avenues... The thoroughness of their research resulted in several previously unexplored leads coming to light. I wouldn't hesitate to work with yet2 again for future projects.

- Technical lead, IoT

Very deep exploration of the space, identifying companies/technologies that the target investment and no other group within the space had heard of.

- Investment Director, Oil & Gas

I was surprised at how well yet2 managers were able to articulate the nuances of what our organization was searching for...yet2 adapted the search to what we really wanted not just what we said we wanted and brought in some interesting leads from areas that we probably would have overlooked.

- OI Leader, Personal Care

# yet2's mission is to drive deals and impact for our clients

Licensee / Buyer	Technology Solution Provider	Technology
Large U.S. Chemical Hygiene Manufacturer	Startup (Israel)	Long range wireless power system
Large U.S. Consumer Healthcare	Startup (US)	Chronic pain relief device
Large U.S. Foods Manufacturer	University (SA)	Natural food colorants
Large Japanese Telecomm	Startup (US)	Fire suppression technology
Large European Foods Manufacturer	Startup (US)	Bioengineering food production
Large U.S. Consumer Healthcare	Startup (EU)	Biomarker monitoring
Global Chemicals and Materials	University (US)	Surface chemistry
Large European Aerospace	Med-sized Company (EU)	Aerospace software
Large European Consumer Healthcare	Startup (US)	Allergy management and prevention
Pharma	Large U.S. Chemicals	Out-licensing of fatty acid production

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# Case Study: yet2 Pitch Day Results in Unilever + Startup Partnership

## Overview

Unilever, a longtime yet2 client, approached yet2 in 2020 for help **identifying diverse, minority-owned, NA-based beauty and personal care suppliers** to expand an ecosystem in product development, R&D, and contract manufacturing. A key requirement was for potential targets to already be certified or have willingness to be certified through the US National Minority Supplier Development Council (NMSDC).

## Approach

- yet2 and Unilever jointly defined a project strategy anchored on a virtual **Unilever Personal Care Pitch Day**, using a methodology yet2 has honed over many years to increase stakeholder buy-in, accelerate decision making, and increase chances of valuable outcomes and deals.
- Out of **42 potential participants scouted by yet2**, yet2 and Unilever **reviewed 25 in detail**. yet2 drove the prioritization of **5 candidates** using key criteria required for a successful deal.
- The Uncovery, a Unilever incubator, picked up **mSeed's pitch for a foam setting spray for braids as one of the lead candidates for a deal**.
- Strong relationship building by both yet2 and Unilever helped mSeed and the Unilever project team overcome potential hurdles and successfully pivot. yet2 facilitated confidential evaluations including **mSeed submission of a product formulation and product cost profile that met Unilever's requirements**.

## Results

- **mSeed prepared 2 SKUs jointly with Unilever** within 3-months after Pitch Day
- Plans to launch 2 additional SKUs under The Uncovery's For Every Type brand
- On-going discussions around a long-term manufacturing partnership



[Revitalizing Hair & Scalp Oil for Black Hair Care product jointly launched under The Uncovery's For Every Type brand](#)

# Case Study: Global Corporate Partners with University out of yet2 scouting project

## Need Overview

A global resources organization asked yet2 for help identifying emerging technologies, methods, and processes enabling a more effective management of dust (PM10) in three areas:

- Measurement, modelling and prediction of dust throughout its lifecycle
- Forcing the settlement of airborne dust at short distances and low wind speeds
- Prevention of dust from becoming airborne

## Approach

- yet2 leveraged multiple channels in its 8-channel network, including university and VC relationships, to identify **research, pre-commercial, commercial, and open-source technologies**
- yet2's cross-geography project team identified **149 potential solution providers** and **interviewed and presented 25 relevant targets, including 4 universities** to the client.
- yet2 employed their **SolutionScape and prioritization methodology** to identify the top targets with capabilities most relevant to the search requirements. Client and yet2 identified **7 as highly interesting** and yet2 arranged intro calls



## Results

**Client entered into a partnership agreement with a University to use their Surface Chemistry expertise**

# Case Study: Global Corporate Partners with University through yet2 OI Portal Submission

## yet2 Open Innovation Portals

yet2 hosts and manages the Open Innovation portals for global food & beverage and consumer goods companies. **Universities, research institutions & start ups are encouraged to submit their technology** either against a published Tech Need or via the General Submissions.

## Submission & Evaluation

- A submission from a University conducting **research into alternatives to synthetic colorants using plant extracts** as possible substitutes was received.
- The University had performed **different methods of extraction** to determine which process is considered the most effective. **Coloring and stability tests** were carried out on the products obtained after the extraction processes, in order to analyze the viability of the natural dye.
- **Efficacy data** was included with the submission. The **quality and relevance** of the research together with the **supporting data** was of high interest to the client.



## Results

**Client entered into a service agreement with the University to continue research**

# Agenda

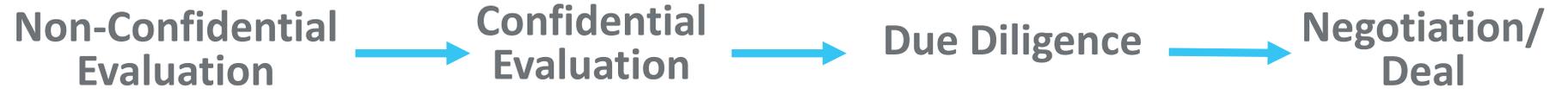
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# Recommendations for Start-Ups (and Universities); What Large-Companies expect



	Non-Confidential Evaluation	Confidential Evaluation	Due Diligence	Negotiation/Deal
<b>Corporate Goals</b>	<ul style="list-style-type: none"> <li>• Convince stakeholders to take risk of NDA and resource an evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholders to commit due diligence resources</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholders to approve a deal</li> </ul>	<ul style="list-style-type: none"> <li>• Maximize deal economics</li> </ul>
<b>Start-up/University Expectations</b>	<ul style="list-style-type: none"> <li>• Articulated interest from client</li> <li>• A good fit for their tech</li> <li>• Do we have the resource &amp; skills to take this forward?</li> </ul>	<ul style="list-style-type: none"> <li>• Clear vision of potential pathway forward</li> <li>• Quick responses</li> <li>• Streamlined NDA negotiation</li> <li>• Commitment of partnership from key stakeholders</li> <li>• Two way NDA/MSA that provides adequate protection</li> </ul>	<ul style="list-style-type: none"> <li>• In-depth partnership discussions</li> <li>• Potential to take our tech to market</li> <li>• Alignment on strategic goals</li> <li>• Guidance on timescales &amp; next stages</li> <li>• Support with costs</li> </ul>	<ul style="list-style-type: none"> <li>• Maximize deal economics</li> </ul>
<b>Best Practices for Startups/Universities</b>	<ul style="list-style-type: none"> <li>• Be responsive</li> <li>• Explain what would be available under NDA without disclosing confidential information</li> </ul>	<ul style="list-style-type: none"> <li>• Tailor information to specific client team (R&amp;D, marketing, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure to have available resources/staffing for outside opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Have a preferred deal model and/or goal from deal</li> <li>• Timely communication</li> </ul>
<b>Startups/Universities Traps to Avoid</b>	<ul style="list-style-type: none"> <li>• Don't implement advice given</li> <li>• Unwillingness to talk to consultants/3<sup>rd</sup> parties</li> </ul>	<ul style="list-style-type: none"> <li>• Impose own NDA or MTA template and be unwilling to sign large company's version</li> </ul>	<ul style="list-style-type: none"> <li>• Impose excessive restrictions on materials testing</li> <li>• Unrealistic timing expectations</li> </ul>	<ul style="list-style-type: none"> <li>• Unreasonable deal expectations</li> </ul>

# Best Practices for Large Companies – Complement the Universities' Strengths



	Non-Confidential Evaluation	Confidential Evaluation	Due Diligence	Negotiation/Deal
<b>Corporate Goals</b>	<ul style="list-style-type: none"> <li>Convince stakeholders to take risk of NDA and resource an evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholders to commit due diligence resources</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholders to approve a deal</li> </ul>	<ul style="list-style-type: none"> <li>Maximize deal economics</li> </ul>
<b>Key Activities</b>	<ul style="list-style-type: none"> <li>Sampling</li> <li>Engage key targets</li> <li>Coordinate introductions</li> </ul>	<ul style="list-style-type: none"> <li>NDA's &amp; MTAs</li> <li>Gather comparative data</li> <li>Confirm deal potential</li> </ul>	<ul style="list-style-type: none"> <li>Business case – Level 1                             <ul style="list-style-type: none"> <li>Big enough and profitable enough to be interesting?</li> </ul> </li> <li>Business case – Level 2</li> </ul>	<ul style="list-style-type: none"> <li>Deal Making &amp; Negotiation</li> <li>Heads of agreement</li> <li>Anonymous patent deals</li> <li>yet2ventures</li> </ul>
<b>Best Practices for Large Companies</b>	<ul style="list-style-type: none"> <li>Scouts well-armed to represent the product divisions</li> <li>Large-Co to clarify and share interest</li> <li>Confirm a good fit for SME's tech</li> <li>Confirm resource &amp; skills to take this forward</li> </ul>	<ul style="list-style-type: none"> <li>Set and share a clear vision of potential pathway forward</li> <li>Quick responses</li> <li>Commitment from key stakeholders</li> <li>Streamlined two-way NDA/MTA that provides adequate protection</li> </ul>	<ul style="list-style-type: none"> <li>Commit appropriate resources to explore partnership</li> <li>Confirm potential to commercialize</li> <li>Align strategic goals</li> <li>Provide guidance on timescales &amp; next stages</li> <li>Support SME's costs</li> </ul>	<ul style="list-style-type: none"> <li>Maximize win-win deal economics</li> </ul>
<b>Large Companies Traps to Avoid</b>	<ul style="list-style-type: none"> <li>Expect free samples</li> <li>Request for excessive information</li> <li>Request sensitive information too early</li> </ul>	<ul style="list-style-type: none"> <li>Lengthy testing procedures</li> <li>Not updating startup on progress</li> </ul>	<ul style="list-style-type: none"> <li>Senior members not involved</li> <li>Not having an opportunity owner/champion</li> </ul>	<ul style="list-style-type: none"> <li>Not listening to startups preferences</li> <li>Not having one point of contact for startups to reach out to</li> </ul>



# Bands of Appropriateness – a balanced give-and-take of value shared critical for Trust-building

## Post-intro call follow-on questions with no commensurate return of value from Large Co to Startup

- yet2/Client already asked for anonymous initial info, an intro call, and 2 earlier rounds of next questions
- **yet2/Client had shared almost nothing back, since Client doesn't know yet how they might proceed with this unexpected opportunity**

### Series of our/client's asks after intro call with solution provider:

- Please feel free to send the studies directly to me. Also, could we please receive 2 samples to the below address?
- We were wondering then if you could please tell us a little bit more about your role at the company.
- Thanks much for this information. May we also ask how your R&D team came to be in the Czech Republic?



### Solution-provider's annoyed response:

- We are now getting into near confidential arena, before greater sharing, it is important that we understand what a potential relationship would look like. At this point, we do not know what you or your client seeks.
- Please understand that we get several inquiries and our objective and modus operandi is to come to grips quickly on whether we have the same long-range plans, etc., e.g., territory, license vs purchase of technology, profit objectives - we understand business and know that one party cannot control all; therefore, transparency on both parties is necessary.



### yet2 attempt to restore trust by sharing back toward balance:

- Apologies if we stepped on any toes. We are absolutely only interested in non-confidential information at this point, and also are very appreciative of all you have been willing to share thus far with very little feedback from CLIENT.
- CLIENT was not expecting to find something like your capabilities, and thus are in heated internal discussions about how they would like to proceed. So unfortunately, we have very little that we can share yet.
- As soon as we have some direction, we will absolutely make sure to balance the scales a little by sharing key information back to you.



### Success (though be mindful we're a chit down...)

- No problem, there is much more in terms of opportunities at [Startup Co]...

# Making incubators more valuable - CVPs

## Comparative Value Propositions – Techs must be valuable

### Defined\* ...

- Good (quantitative) data, showing
- Significant cost and/or performance advantage, vs. a specific incumbent AND against other new technologies in that application.

\*Needs to show enormous performance advantage if similar cost

### Example DFO

#### Technology Description

Fisonin™ (NPH29) is an anti-inflammatory and anti-pigmentation bioactive. It was originally developed in 1990's in the UK as a topical anti-inflammatory drug that reached Phase III but was never approved as a drug. It was later developed as a cosmetic active ingredient by nPharmakon, who also discovered its anti-pigmentation activity.

#### Comparative Value Proposition

- **Multi-Benefit** – Combined anti-pigmentation and anti-inflammation in one product.
- **Anti-Pigmentation** – only topical KIT inhibitor agent on the market with **90% inhibition against human KIT in *in vitro* assays; 7x higher reduction of UV-induced pigmentation compared to a best-selling competitor containing tranexamic acid.**
- **Anti-inflammatory** – Inhibits **human COX-1 (80%), COX-2 (88%), and 5-lipoxygenase (67%) in *in vitro* assays.** Can be used to soothe the skin after an inflammatory and abrasive skin treatment.

**Performance advantage compared to competition**

**Quantitative data**



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**Thank You**

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