# The R&D and Innovation Data Revolution

September 14, 2022

Robert Lowe Chief Executive Officer Wellspring Worldwide





### **About Wellspring**

# **INNOVATION OPS** for the modern enterprise

We power world-class innovation management and technology commercialization programs for leading corporations and universities.







### Wellspring Scout: today's focus

#### Search

| Filters             | Q "food allergen"  | X Advanced -              |
|---------------------|--|---------------------------|
| ▼ Category          | □ 1 - 100 of 9,308   | elevance Date Updated     |
| All                 |  |                           |
| Research Grants 632 | Compositions of food allergens   | X Explore Citations       |
| Publications 5.3K   | Publication Number Filing Status Availability Filing Date US 10881728 Issued Patent Unknown 2019-04-09 2021-01-05  |                           |
| Patents 2.5K        | P  |                           |
| Clinical Trials 69  | of food allergens and the uses thereof. The invention particularly discloses new food allergen may be used in any<br>subject, particularly human subjects, and is applicable to any food allergen for the treatment of food allergies by |                           |
| SEC Filings 206     | delivering food allergens to the gut immune system without substantial   |                           |
| • Web Documents 213 | Pizeta Pierre-Henri Benharnou 🌲 Christophe Dupont 👗 Stefan Koppelman 🛔 Laurent I   | Martin & House Developed  |
| Startups 96         | show 1 more  | Marun e Herve Brochard    |
| Press Releases 180  | DBV Technologies   |                           |
| Year                |  |                           |
| Country             | Rare food allergens. ID Published Date Journal   |                           |
| State               | 33465170 2021-01-01 Allergologie select, 2021-01-01, Volume 5  |                           |
|                     | In food allergy, only a restricted number of protein families have been identified to contain allerg   |                           |
| Person              | food source, as compared to minor allergens only affecting a small number of food allergic patients. In addition, rare   |                           |
| Organization Type   | allergens have only been described for single cases so far. Rare allergens can derive from novel foods, including exc<br>varie   | I foods, including exotic |
| Institution         |  |                           |
| Company             |  |                           |

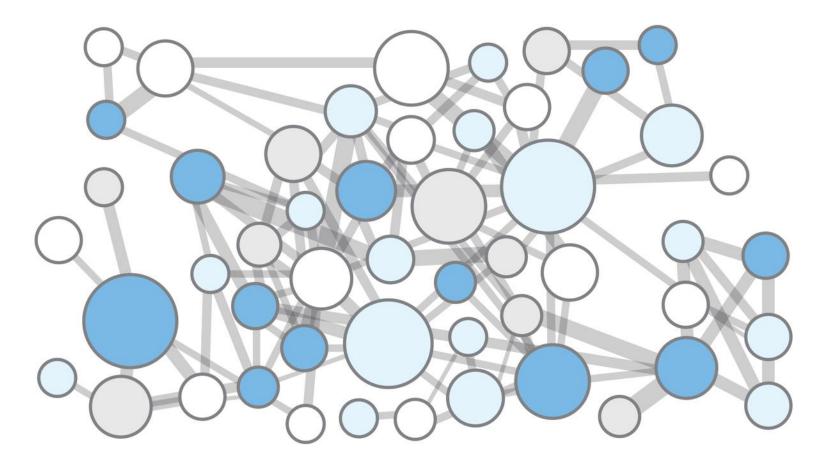
#### **Analytics**



*Providing added <u>scale</u>, <u>acceleration</u>, and <u>breadth</u> as a complement your existing innovation partnering and licensing activities.* 



### This is What Modern Innovation Looks Like





## **Open innovation, circa 2022: who ya gonna call?**



"We already know the top-ten robotics (AI, biologics, nanotech, etc.) research programs."

"We're the industry leader. All the best startups come to us."

"We don't have time to track down every possible licensee."

"Innovating with the government takes too long. We're not sure where to start."



### Our common struggle: "it's too hard"



Why not look beyond the usual suspects?

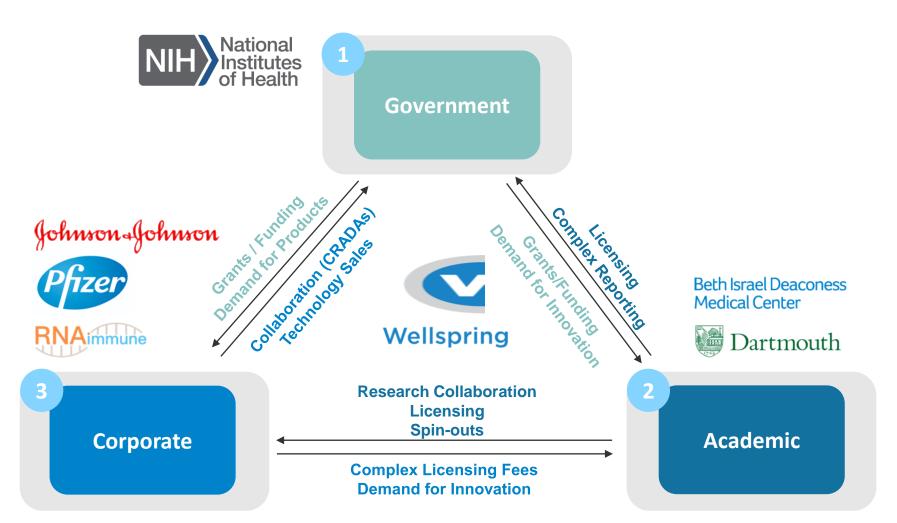
- Bandwidth-intensive
- Costs too much
- Inconsistent quality
- Distraction for staff



# **Ecosystem-Driven Innovation**



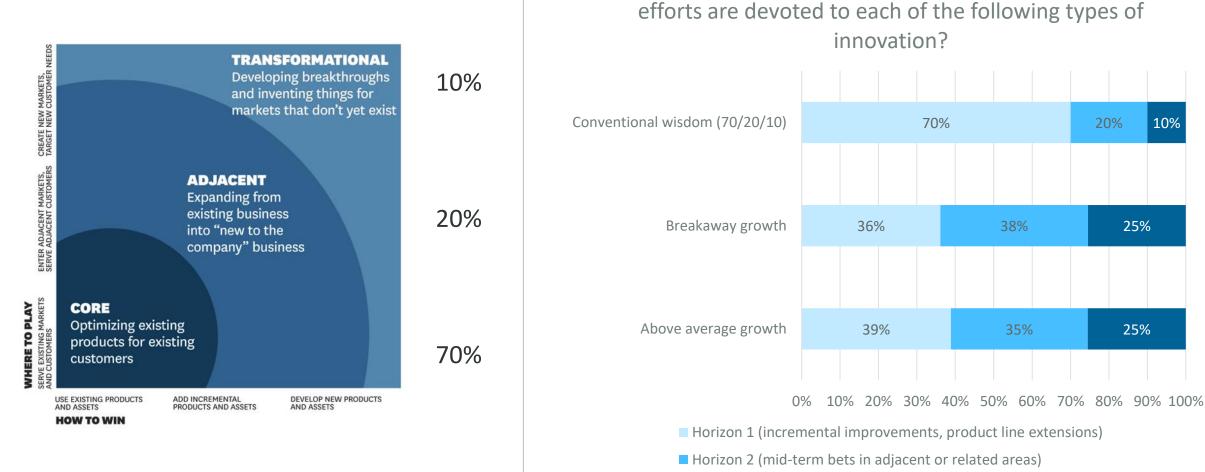
### **COVID-19 Vaccine Represents a Successful Innovation Supply Chain**





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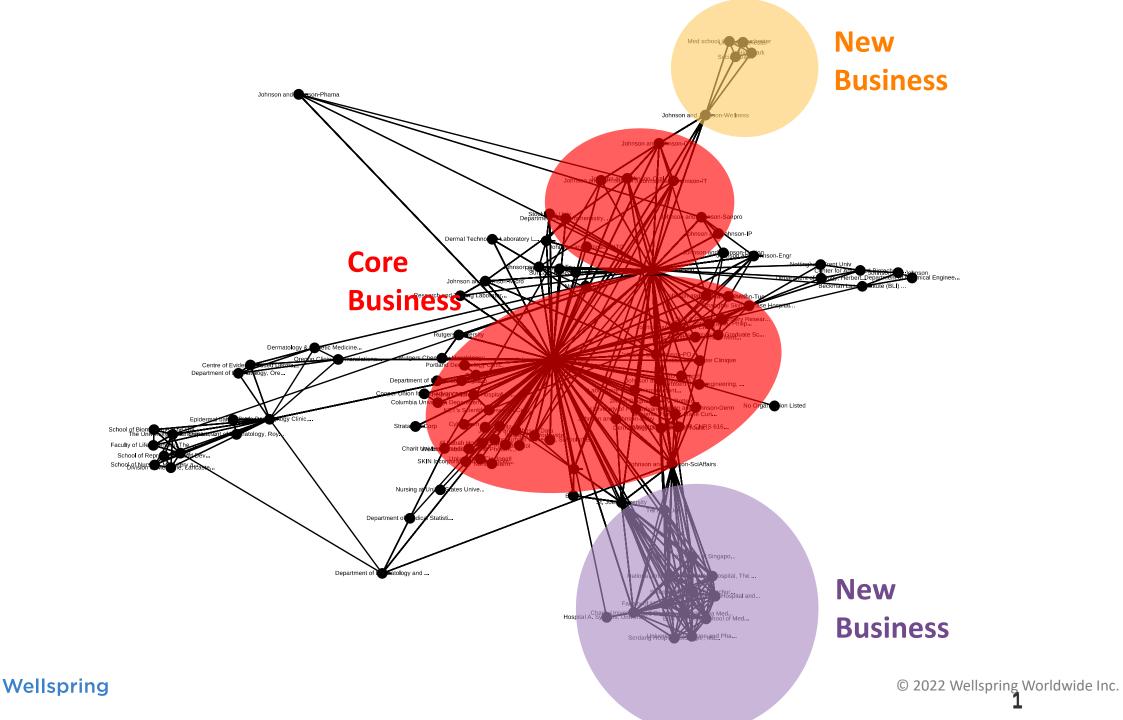
## **High-growth companies prioritize H2-H3 innovation**



■ Horizon 3 (long-run strategic bets to unlock new-to-world value)

What percentage of your company's innovation

Sources: McKinsey Quarterly, December 1st 2009 Harvard Business Review, May 2012



#### Successful Ecosystem-Driven Innovation Requires Three Capabilities

#### Surveying

- Wildcatting vs. modern tech-based sensing
- AI Tools enable rapid sifting and matching
- Rapid scoring to prioritize reviews

#### Triaging

Tech and partner analysis *in context*Formal scoring and feedback process

#### **Ecosystem Structuring**

Planned approach to partners: capacity, concentration vs breadth, depth of relationship



# The art of what's (now) possible

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| Organization Type   |   |  |
| Institution         | Publications) may Medical University of Vienna  |  |
| Company             |   |  |

- Search <u>wider</u> find lateral and adjacent opportunities
- Search <u>deeper</u> identify the hidden gems
- Search <u>earlier</u> uncover emerging startups and experts



### **Emerging technology space: synthetic biology**

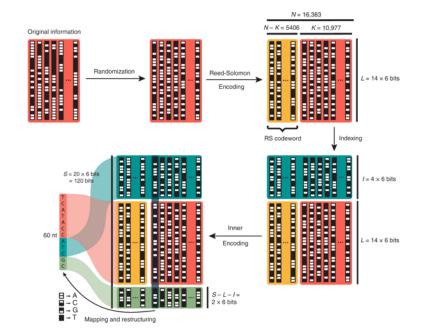
**Bio-based products** (*improve sustainability*)

# **Bioengineered therapeutics** (better health outcomes)

# **Synthetic DNA** (*information storage*)







Source: Nature Communications, October 22, 2020



# The power of the long tail

#### **Bio-based packaging**

1,285 corporate assets created since 2019.



#### **Bioengineered therapeutics**

1,551 research assets created since 2019.







Washington Boston U. Rice Univ.

ETH



Imperial

College

Cold Spring Harbor

CSHL

Laborator

CSH 8





Kyoto U.

USAF

NUS

**9**3

NŬS

Arkansas



















Codex DNA

LanzaTech 🛇

LanzaTech

Genomatica

Ginkgo

**Bioworks** 

Absci

Synthego

**Biotechnology platforms** 

365 startups actively building next-gen

systems and tools.

T

**Twist Bioscience** 

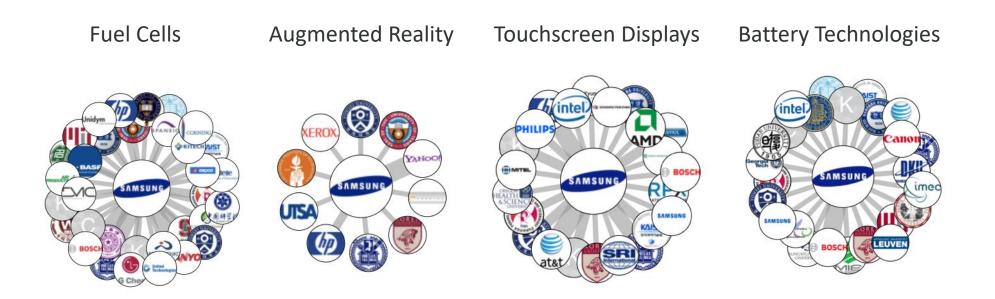
Inscripta

Synthace



#### **Tertius Gaudens Collaboration**

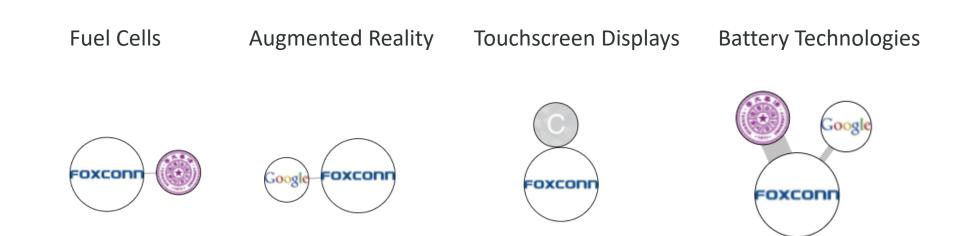
"Between two fighters, the third benefits" – Italian Proverb





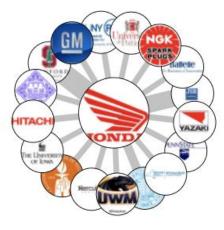
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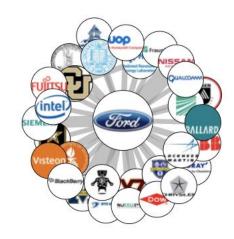
#### **Trusted Partner Collaboration**





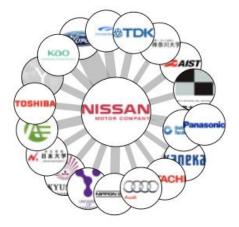
#### **Dominant Partner Structure in Fuel Cells**







Michigan 42% Nissan 31%



NIAIST 20% Jatco 43%



#### **Complementary needs across the ecosystem**

#### Corporate

Company looking to introduce bio-based products into the market. Also seeking to move to eco-friendly packaging. Potentially looking for technologies and startups.



#### Academic

Leading research institution interested in licensing synthetic biology technologies developed from its labs. Also interested in broadening research collaboration with both corporate and government actors.



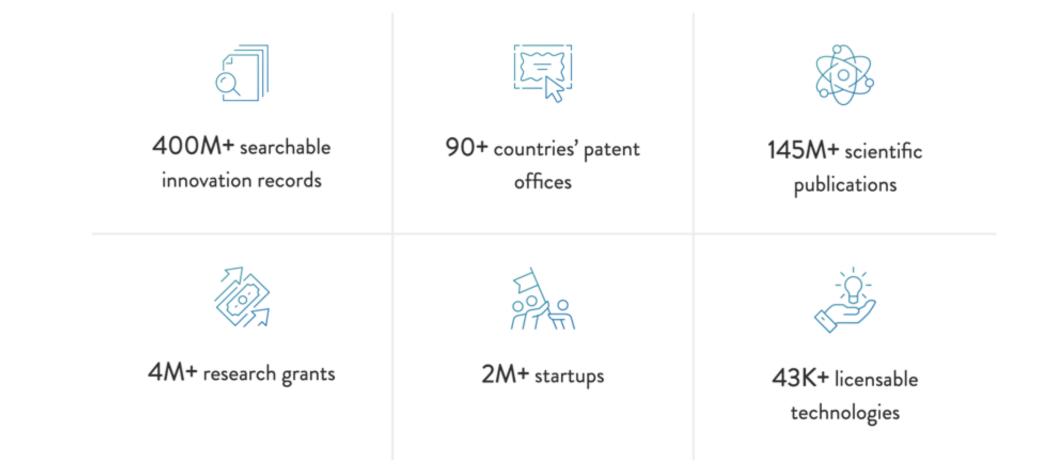
#### Government

Large granting and research agency looking to build deeper, broader partnerships in the private sector. Views synthetic biology as a key technology platform of the future.





The most comprehensive innovation search platform





# Thank you + Q&A

Rob.lowe@wellspring.com

