

# LAB START

*Super-charging National Laboratory Innovation*

[www.labstartnm.com](http://www.labstartnm.com)

4200 West Jemez Road, Suite 301

Los Alamos, NM

505.350.9091

July 2011

## Outline

- ◆ Mission
- ◆ Definition of the investment-grade
- ◆ Problem
- ◆ Value proposition
- ◆ Product
- ◆ Los Alamos Venture Acceleration Initiative
- ◆ Projects
- ◆ Companies and Consultants
- ◆ Stakeholders
- ◆ Structure
- ◆ Proceeds and Uses
- ◆ Funding strategy

**LAB START**  
Super-charging National Laboratory Innovation

## Mission

- ◆ Supercharge technology commercialization at Los Alamos National Laboratory and Sandia National Laboratories
- ◆ Search and discovery of PIs and their technology innovations in collaboration with technology transfer group at Laboratory
- ◆ Assessment of technology, applications, markets, needs, suitability for commercialization
- ◆ Provide linkages to large corporations and investors with vetted sets of technologies
- ◆ Startup companies when appropriate
- ◆ Increase the number of investment-grade deals per year to greater than 30

**LABSTART**  
supercharging national laboratory innovation

## Definition of *investment-grade*:

*If funded with a specific amount of capital would result in a specific increase in value by virtue of achievement of a milestone or level at which the opportunity for revenue generation through an exit or commercial partnership exists*

**Anticipated benefit:** Increased quantity and quality deal-flow resulting in more startups, more licenses, more CRADAs, more corporate interactions and more exposure.

**LABSTART**  
supercharging national laboratory innovation

## Problem

- ◆ Technologies at NM Labs have **significant commercial potential** (lots of “x, little “y”)
  - ◆ ~\$1.5 - \$3B annually in R&D funding
- ◆ **No consistent method** to move viable technologies into an **investment-grade opportunity**
- ◆ America looking for **innovation and jobs**
- ◆ Need a consistent model to **bring federally-funded research into the market place**
- ◆ For more info: GAO Report #09-548

**LABSTART**  
Supporting National Laboratory Innovation

## Value Proposition

### NATIONAL LAB



### LABSTART



Connection to all scientists and path for them to pursue tech commercialization

Link to management to convey vision

Extensive corporate & regional networks

Licensing, IP, CRADAs, spinouts

Improved morale, recruitment through incentives

Commercialization experience matched with new technology

Viable technology identified & pursued

Network focused on specific opportunity

Startup company, prototypes

Market pull

Return on investment

Scalable high tech opportunity

High value license opportunity

High growth investment

**LABSTART**  
Supporting National Laboratory Innovation

## LABSTART Product

People



Analysis



Process



Due diligence  
& network



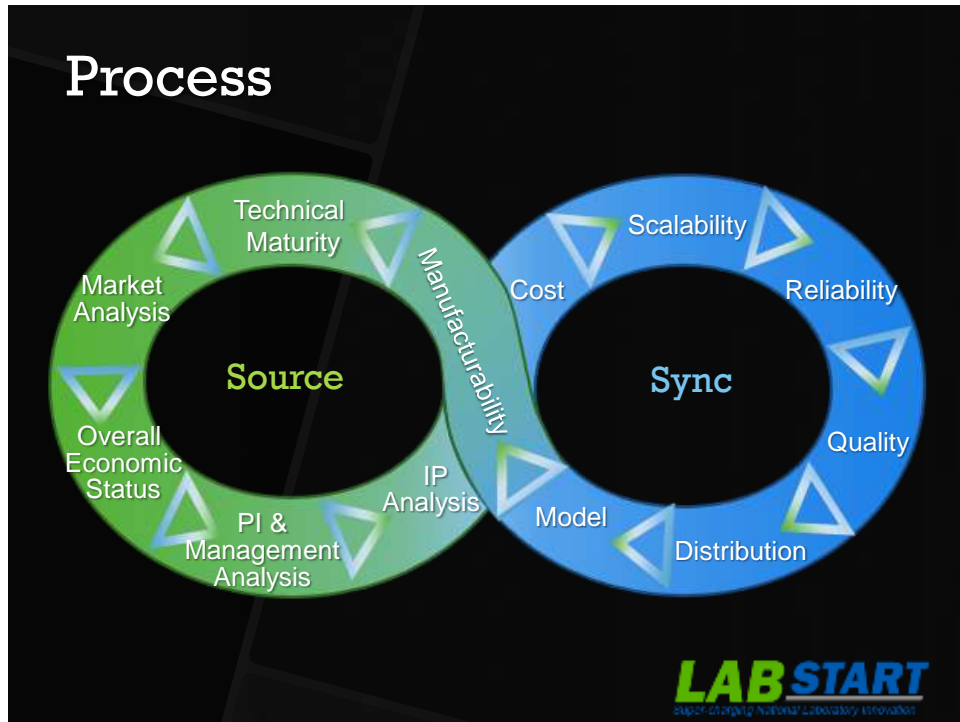
Investment grade opportunity

**LABSTART**  
empowering national laboratory innovation

## Why is this product unique?

- ◆ Strong relationship with LANL and SNL
- ◆ Positive reputation and acceptance by DOE
- ◆ Emphasis on commercial experience
- ◆ Commercial start-up experience
- ◆ Peer-to-peer interactions and respect
- ◆ Continual & consistent interactions
- ◆ Strong, broad commercial and technology network
- ◆ Proven due diligence filter
- ◆ Funding, syndications & exits

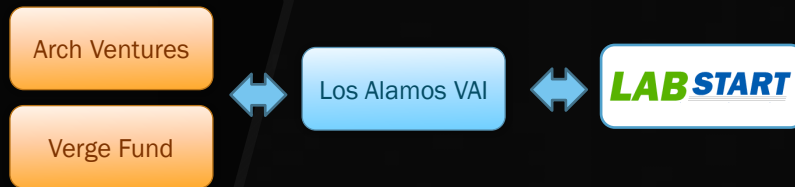
**LABSTART**  
empowering national laboratory innovation



## What **LABSTART** is NOT

- ◆ Technology incubator
- ◆ Technology transfer organization or effort
- ◆ Mentor or Educator
- ◆ Business plan preparer
- ◆ Entrepreneur trainer
- ◆ Economic developer

## Los Alamos Venture Acceleration Initiative



- ◆ Joint venture
- ◆ Selected through competitive solicitation
- ◆ Provides external business guidance, market valuation, and funding strategy
- ◆ Recruits management resources to lead high-growth startups

**LABSTART**  
Supporting National Laboratory Innovation

## Los Alamos Venture Acceleration Initiative

### FEATURES

Launched Q2 FY09

LabStart Investment:

- 50% in-kind investment
- Cash investments in technology development
- Financing of startup companies

### IMPACTS

Market due-diligence completed on over 70 projects

1<sup>st</sup> startup launched Q2 FY10

2<sup>nd</sup> startup launched Q3 FY10

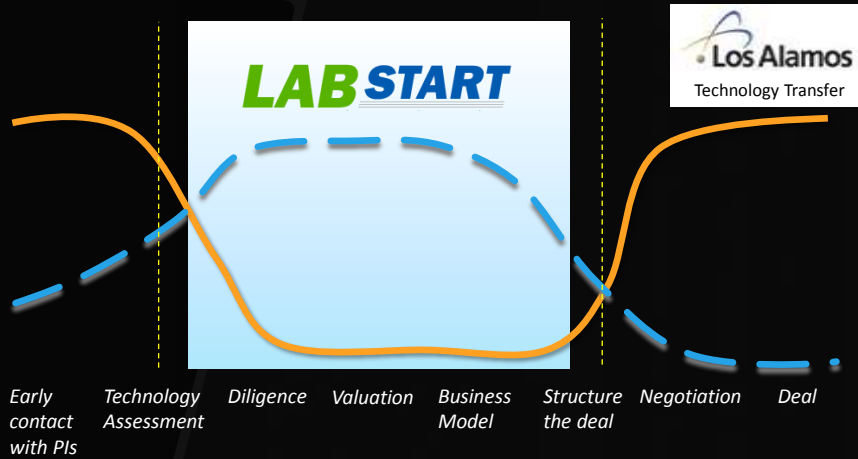
3<sup>rd</sup> & 4<sup>th</sup> startups launched Q2 FY11

Three more startups imminent

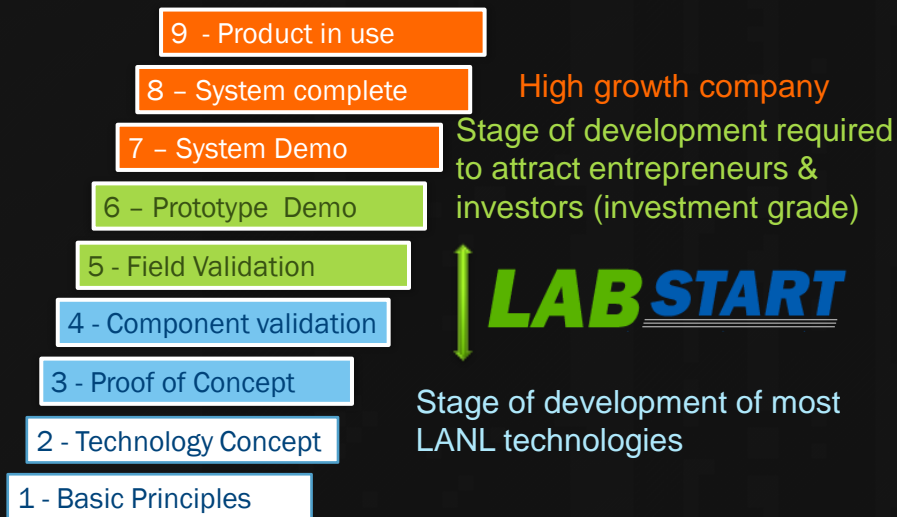
Facilitated relationships with Boeing, Dow, Verizon, GM Ventures, NVIDIA, New Venture Partners, Chart Ventures

Opportunities passed to other VC firms

# LabStart critical to National Labs



## Technology Readiness Level (TRL)



**LABSTART**  
accelerating national laboratory innovation

## **LABSTART** Companies

### ▶ **L1 Agro Sciences**

- First company started with LabStart
- Raised \$14M (Arch, Polaris, Venrock, Welcome Trust)
- Transforming the \$50B agricultural trail market with applications in virtually all crops



### ▶ **Brockwell Structure Technology**

- YXO, Inc. (Yun Li, Interim CEO)
- Aerospace, auto & sports markets
  - Seeking first round



### ▶ **The AttoLight Group**

- Diagnostic instrumentation
- Funded through a joint venture



### ▶ **Deep Look**

- VCAT - Knowledge modeling & analysis tool



## Sample of Projects of High Interest

- ◆ Consumer Mosaic (sparse data modeling)
- ◆ Neural Core (advanced machine learning)
- ◆ Epiflex (HTC super-conducting transmission)
- ◆ CLEAR (infrastructure & resource planning)
- ◆ Novel Broad-spectrum Antibiotic
- ◆ Laser-weave (structural reinforcements)
- ◆ Increased Thermal Stability in Cellulases
- ◆ Polyclonal Antibody Production

Feed of approx. 5 new projects/wk from NM Labs(250/yr)  
Interest rate approximately 40% (100/yr)

## Consultants

Carey Schwartz	DARPA/Defense	Information Tech
Charlotte Hubbert	Accelerator Corp	Life Science
Doug Welter	Philips	Manufacturing
Yun Li	Intel	Materials
Lori Upham	CureDM	Life Sciences
Molly Cernicek	Independent	IT/Social Networks
Kelly O'Donnell	SoNM	Gov. Relations/Econ
Numerous corporations		



## Stakeholders

PLAYERS	ROLE	BENEFITS
Investors	<ul style="list-style-type: none"> <li>Support operations of LabStart III</li> </ul>	<ul style="list-style-type: none"> <li>Access to filtered deal flow</li> <li>One "silver bullet" per institution</li> </ul>
LabStart III	<ul style="list-style-type: none"> <li>Real-time, hands-on due diligence</li> <li>Access to technology sources</li> <li>Access to technology investors</li> </ul>	<ul style="list-style-type: none"> <li>Maintain operations through sponsorships and contracts</li> <li>Create value and profits through equity in companies started by partners: finder's fee</li> <li>Build value and data that creates credibility to raise their own funds</li> </ul>
NM Labs UNM DOE DoD NM State	<ul style="list-style-type: none"> <li>Fund and develop technology</li> <li>Support operations of LabStart III</li> <li>Support high-tech economic growth</li> </ul>	<ul style="list-style-type: none"> <li>Enhance tech transfer efforts</li> <li>Utilize built-in networks</li> <li>Quicker due diligence</li> <li>Interrogate reality in real time</li> <li>Deploy federal investments into private sector</li> </ul>

## LabStart III Concept Structure

- ◆ Achieving a return through enabling an increased  $Q^2$  deal flow (quantity/quality)
- ◆ Return; 80/20 upon full return
- ◆ 2% per deal (royalty, income, equity, other)
- ◆ \$250K per year + expenses per subscription
- ◆ Co-Cooperative Limited Partners CPs

**LABSTART**  
empowering national laboratory innovation

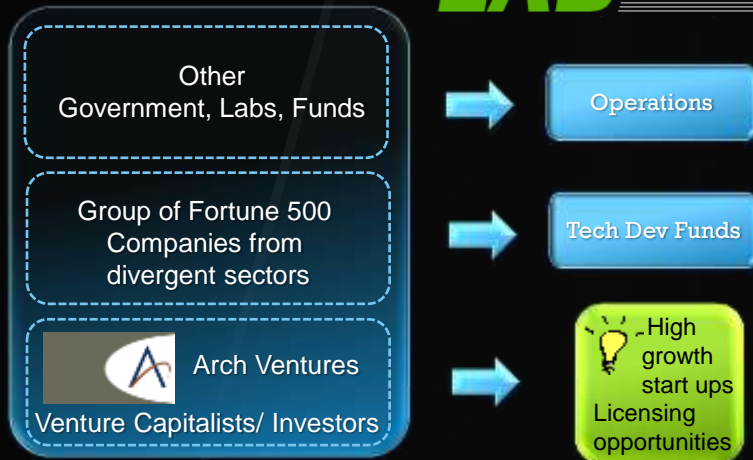
## Proceeds and Use

- ◆ Management: \$1M/yr for 5 years
  - ◆ 3.5 FTEs
  - ◆ Consultants as needed
  - ◆ Operations
  - ◆ Marketing
  - ◆ Travel
- ◆ Technology development: \$2M/yr for 5 years
- ◆ Formal Laboratory contract

**LABSTART**  
empowering national laboratory innovation

# Funding Strategy

## **LABSTART**



**LABSTART**  
BIO-INSPIRED SYSTEMS UNIVERSITY INCUBATOR