



ACS Webinars™

We will start momentarily at 2pm ET



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July 29 - "Department of Commerce Sustainable Manufacturing Initiative – Government Resources that Support Sustainable Manufacturing" with Morgan Barr, International Economist, Department of Commerce.



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ACS WEBINARS™

***Living with Vertigo: An Entrepreneurial Story in the
Chemical Industry***



Speaker: Brian Morin
Innegrity LLC



Moderator: Craig Galbraith
UNCW

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Living with Vertigo
An Entrepreneurial Story
July 22, 2010

INNegrity™ Innovation with Integrity



Four Easy Steps to Losing Your Lunch

- **Dropping Seeds: Business Plan and Launch**
- Free Fall: What Went Wrong
- Rocket Ship: What Went Right
- Soaring: Where We Are Now

INNegrity™ Innovation with Integrity



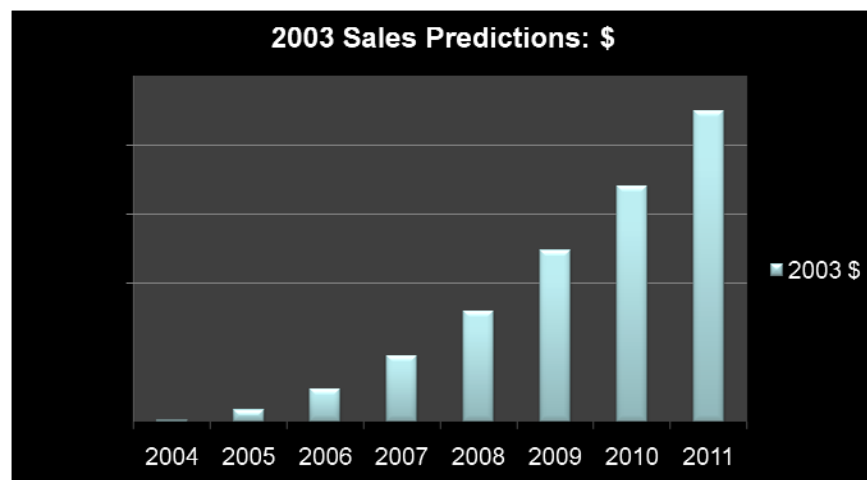
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Dropping Seeds: Business Plan & Launch

- **Sell Fiber**
 - New technology based on
 - 3M film
 - Milliken additive
 - Outsource manufacturing
- **Market**
 - “Glass Plus”
 - Reduce weight of glass composites
 - 6 billion pound market
 - Price ~2x glass, 20% premium in-use (use less)
 - Segments
 - Marine, transportation, sporting goods
- **Sales**
 - Pull through selling to weavers
 - Primary activities of company
 - application development
 - business development
- **Finances**
 - Founders, angels
 - Breakeven very low
 - Almost no CAP-EX.

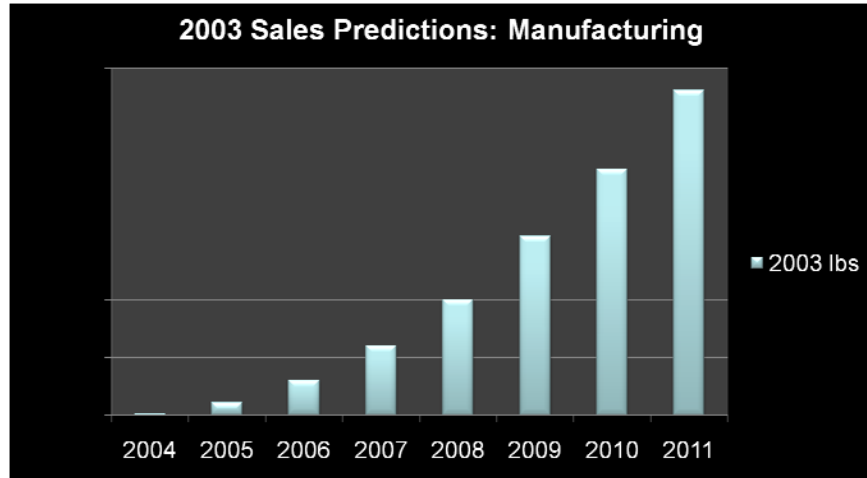
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2003: 18 months to revenue



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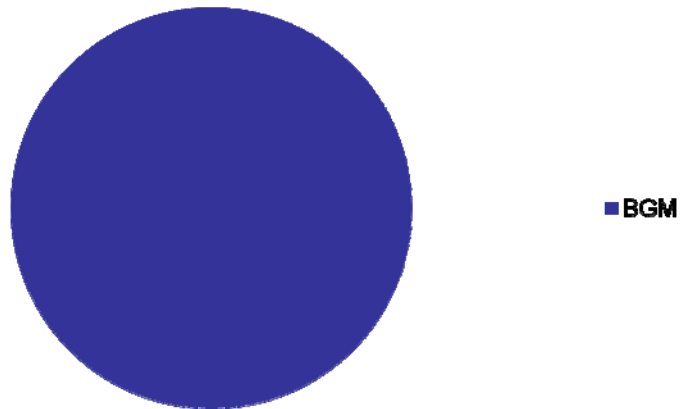
Price: ~\$2.00/lb



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Initial Funding: BGM \$50,000,
May, 2004

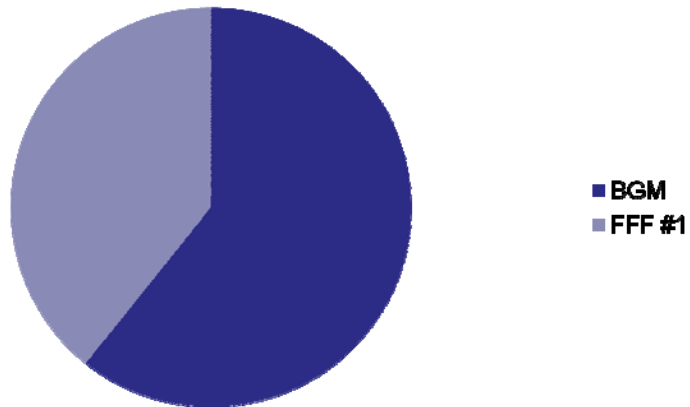
Ownership - 2004 A



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Friends/Family/Fools #1, November 2004

Ownership - 2004 B



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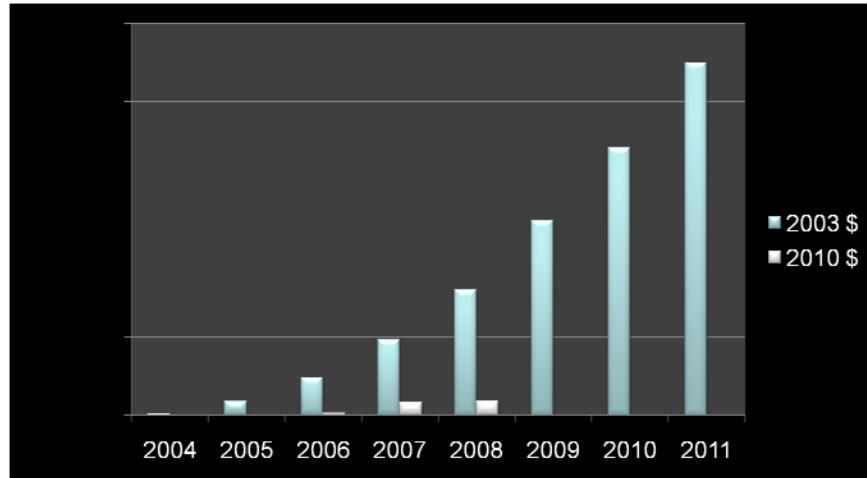
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Free Fall: What Went Wrong 2005-2006

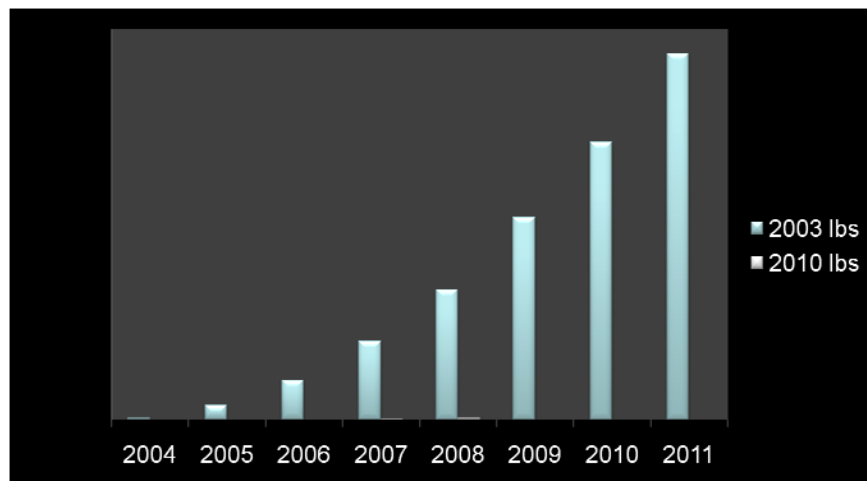
- Requires Dedicated Equipment
 - Learned 2Q05
 - Can't outsource mfg
 - 10-40x investment required...
 - ...to get started
 - Growth requires continual CAPEX
 - 1-3 years scale-up development
 - **Can it even be done?**
 - UNCERTAINTY
- Previous employer law suit
 - July 2005
 - "Kitchen Sink" suit
 - Employment agreement
 - Duty of Loyalty
 - SC Trade Secrets Act
 - **Claimed IP ownership**
 - \$500,000 legal expenses
 - Plaintiff 3-5x
 - 2 years to resolve
 - 4 years through appeal process
 - UNCERTAINTY

An Unfortunately Common Story



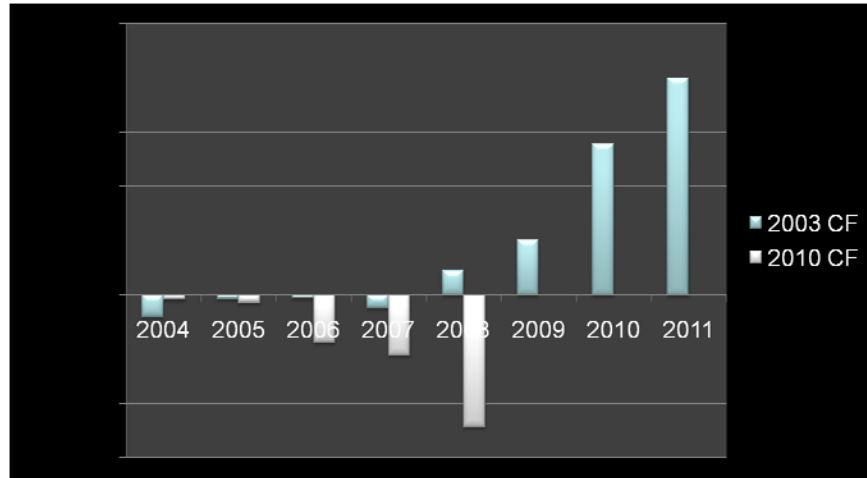
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An U.C.S: Lbs Sold



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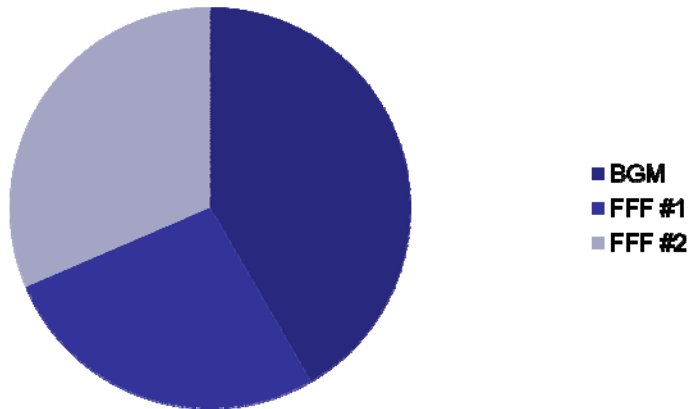
An U.C.S: Cash Flow



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Friends/Family/Fools #2, March 2006

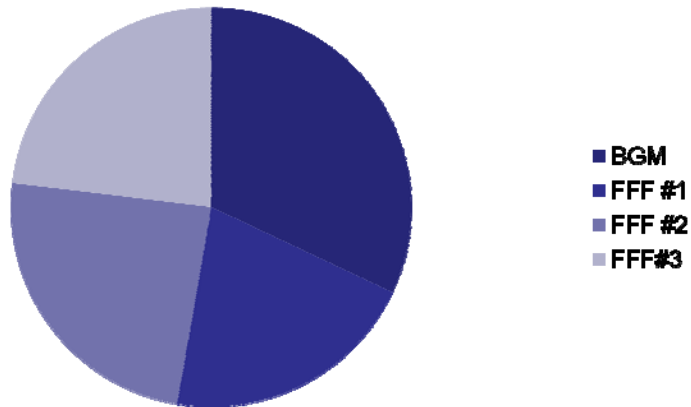
Ownership - 2006 A



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Friends/Family/Fools #3, November 2006

Ownership - 2006 B



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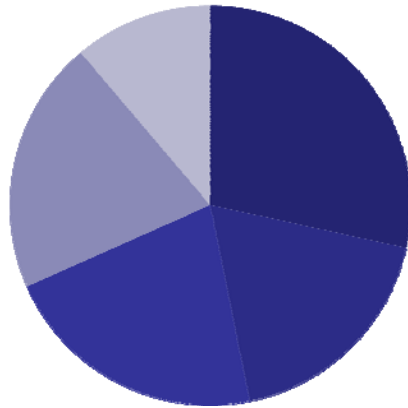
Rocket Ship: What Went Right: 2007-2009

- **Trey Tucker**
 - “Didn’t know it couldn’t be done”
- **Scale up progression**
 - Lab machine ~1 lbs/hr
 - Failed outsource mfg ~30 lbs/hr
 - 2005
 - Pilot Machine Developed
 - Started at 12 lbs/hr
 - Finished at 40 lbs/hr
 - 2007
 - Production machine
 - Designed 2007
 - Built 2008
- **“Won” Law Suit**
 - March 2007
 - “Voluntarily” dropped suit against Innegrity
 - Lost 4/5 claims vs. BGM
 - \$25,342 settlement
- **Won appeal**
 - August 2009
- **Dropped further appeal**
 - December 2009

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Angel Round, June 2007

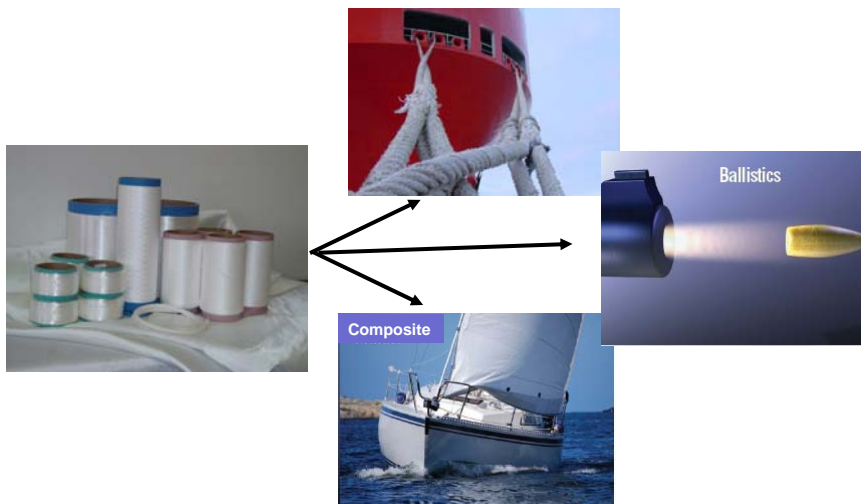
Ownership - 2007



- BGM
- FFF #1
- FFF #2
- FFF#3
- Angel

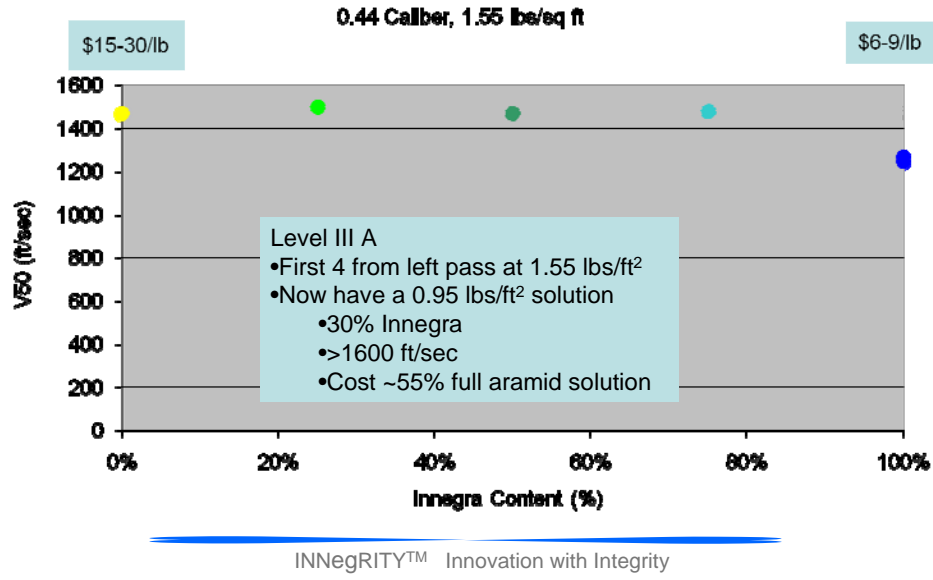
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Lightweight, Tough High Performance Fiber



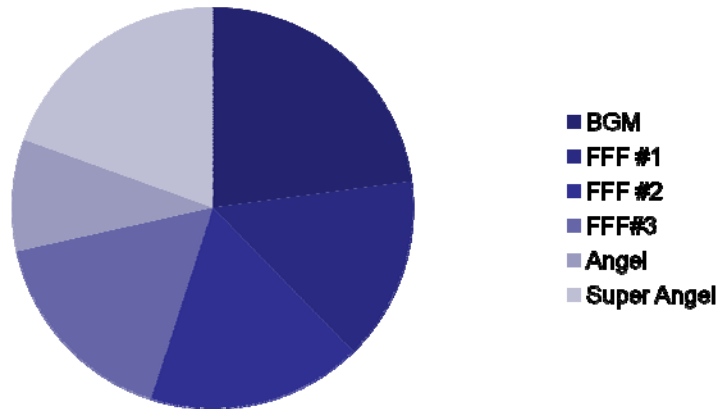
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Innega S Hard Ballistics



Super Angel, May 2008

Ownership - 2008

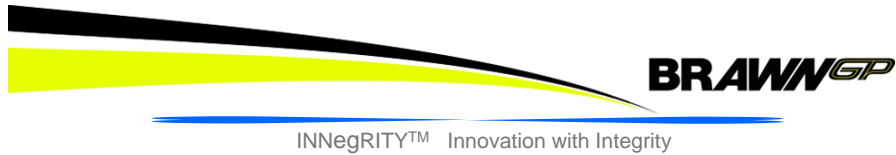


Fastest Fiber in Formula 1



- Melbourne #1 & #2
- Singapore #1 & #5
- Bahrain #1 & #5
- Barcelona #1 & #2
- Monaco #1 & #2
- Turkey #1 & #3
- Europe #1 & #7
- Italy #1 & #2
- 2008
 - 4 finishes, 14 points, 18 races
 - 9th of 12 teams
- 2009
 - **32 finishes, 172 points, 17 races**
 - **1st for both team and driver**

•Brawn GP is first and only team to use Innegra extensively in their car



Carbon Aramid

Carbon Innegra

Figure 3: Despite suffering the same fate as the specimen in Figure 2, the Innegra/Carbon front wing endplate remained intact and relatively unscathed.



Riot Kayaks

- Astro 58
- 13 lbs river kayak

Tested on a Nile waterfall!

Carbon – Innegra intimate blend for maximum toughness/impact (dart and izod).

Black diamond weave pattern shows tough Innegra

INNegRIT



Ropes



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Tahoe Stand Up Paddleboards

Foam core – Innegra – glass

3rd Annual Tahoe Nalu Classic

15th August

•Women took 1st

•Men took 2nd



HMPP, with intermediate properties, makes great tie-layer between stiff skin and “soft” core materials.

- Increase skin toughness
- Decrease delamination

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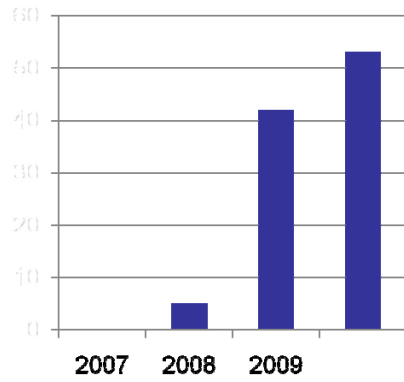
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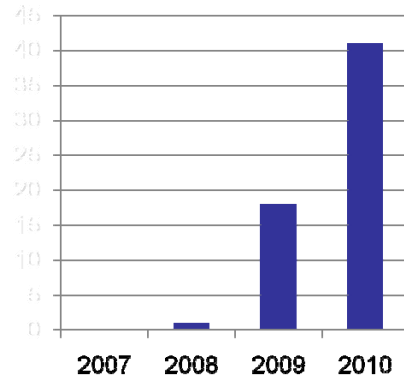
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Customers Increasing

Channel Partners Offering Innegra

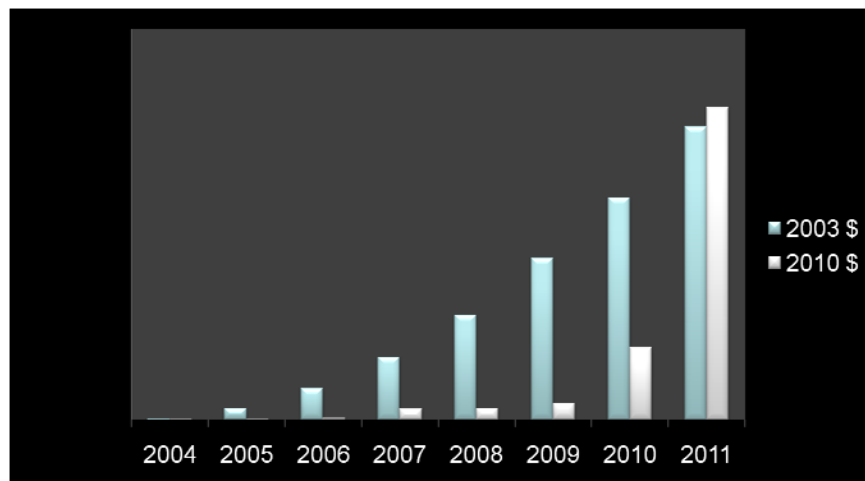


End Users Using Innegra



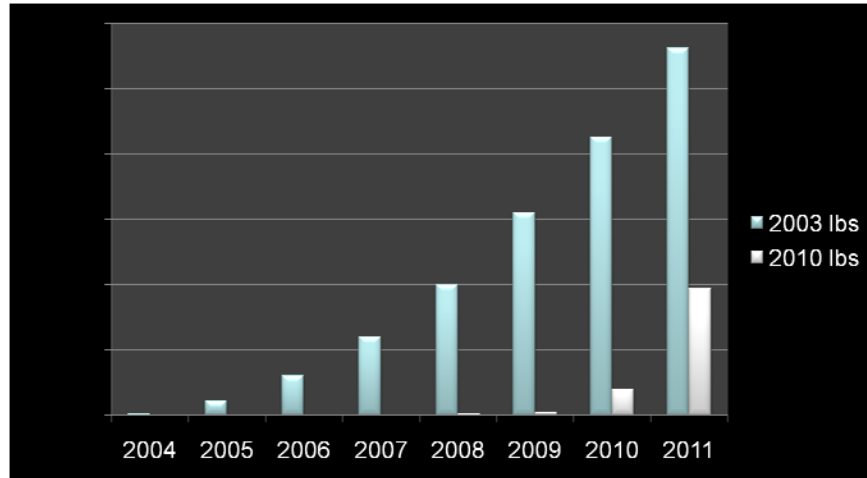
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New Game: Catch the Hockey Stick



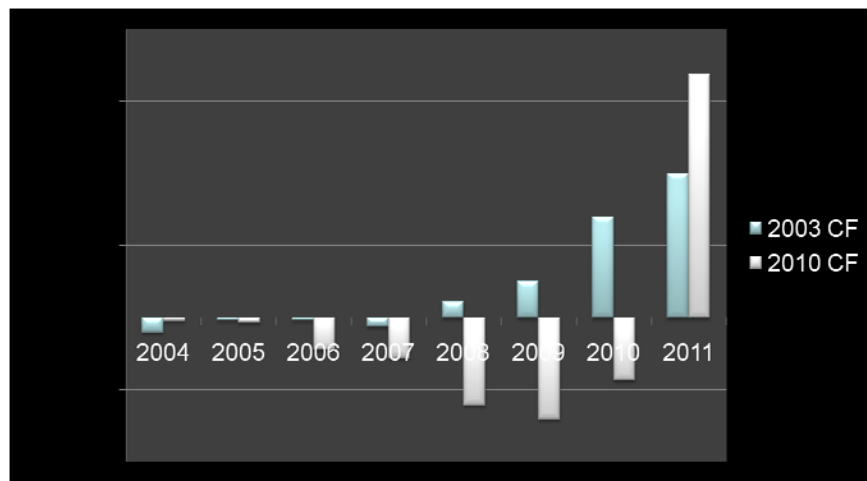
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Can anyone see the underlying good news?



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What's happening to the integral of the negative cash flow predictions?



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Where are we now? Lessons Learned

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Lessons

- First three rules of entrepreneurship:
 - Never quit! Never quit! Never quit!
- Learn from the market
 - It's a dialogue, not a monologue
- Don't go it alone—get all the help you can
- Cash flow drives everything
 - Most important CEO skill is ability to raise \$\$
 - Corollary: \$\$ can buy other skills...

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Q&A SESSION

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