



Innovation in the Clean Energy Space: Lessons Learned at A123

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Founding Team:



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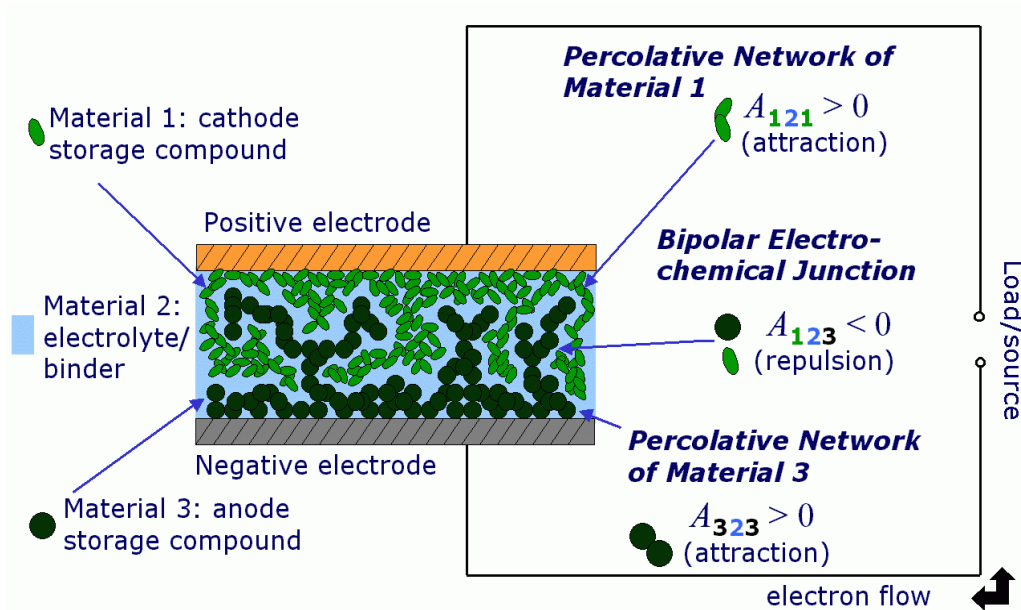
Bart Riley

Origin of Our Name:

- A123 Systems owes its name to the Hamaker force constant which is used to calculate the attractive and repulsive forces between particles at nano dimensions, and which begins “A123...”

$$A_{123} = \frac{3}{4} kT \left(\frac{E_1 - E_2}{E_1 + E_2} \right) \left(\frac{E_3 - E_2}{E_3 + E_2} \right) + \frac{3}{8} \frac{h\nu}{\sqrt{2}} \frac{(n_1^2 - n_2^2)(n_3^2 - n_2^2)}{(n_1^2 + n_2^2)^{1/2} (n_3^2 + n_2^2)^{1/2} \left\{ (n_1^2 + n_2^2)^{1/2} + (n_3^2 + n_2^2)^{1/2} \right\}}$$

The Idea: A battery that assembles itself

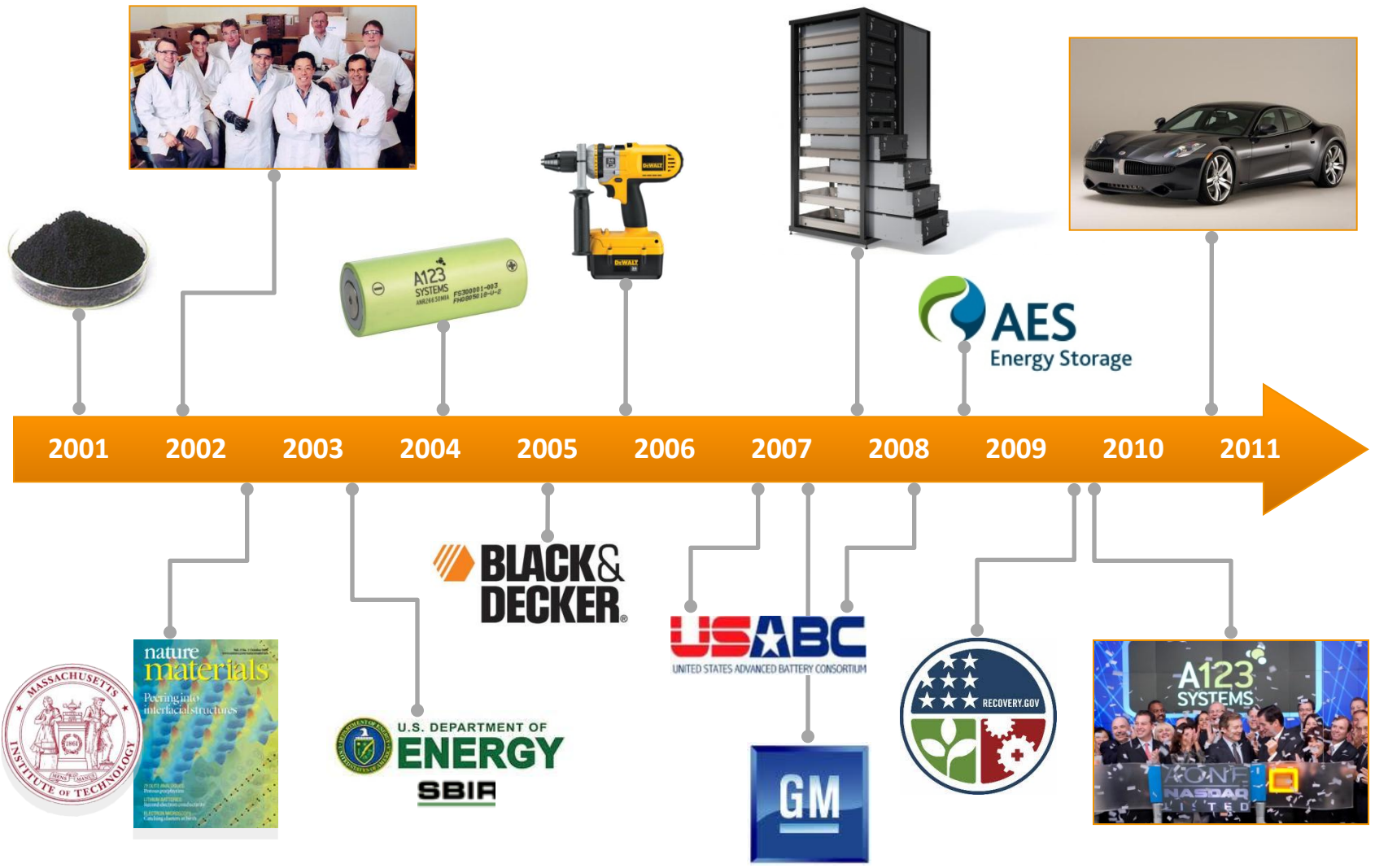


Advantages

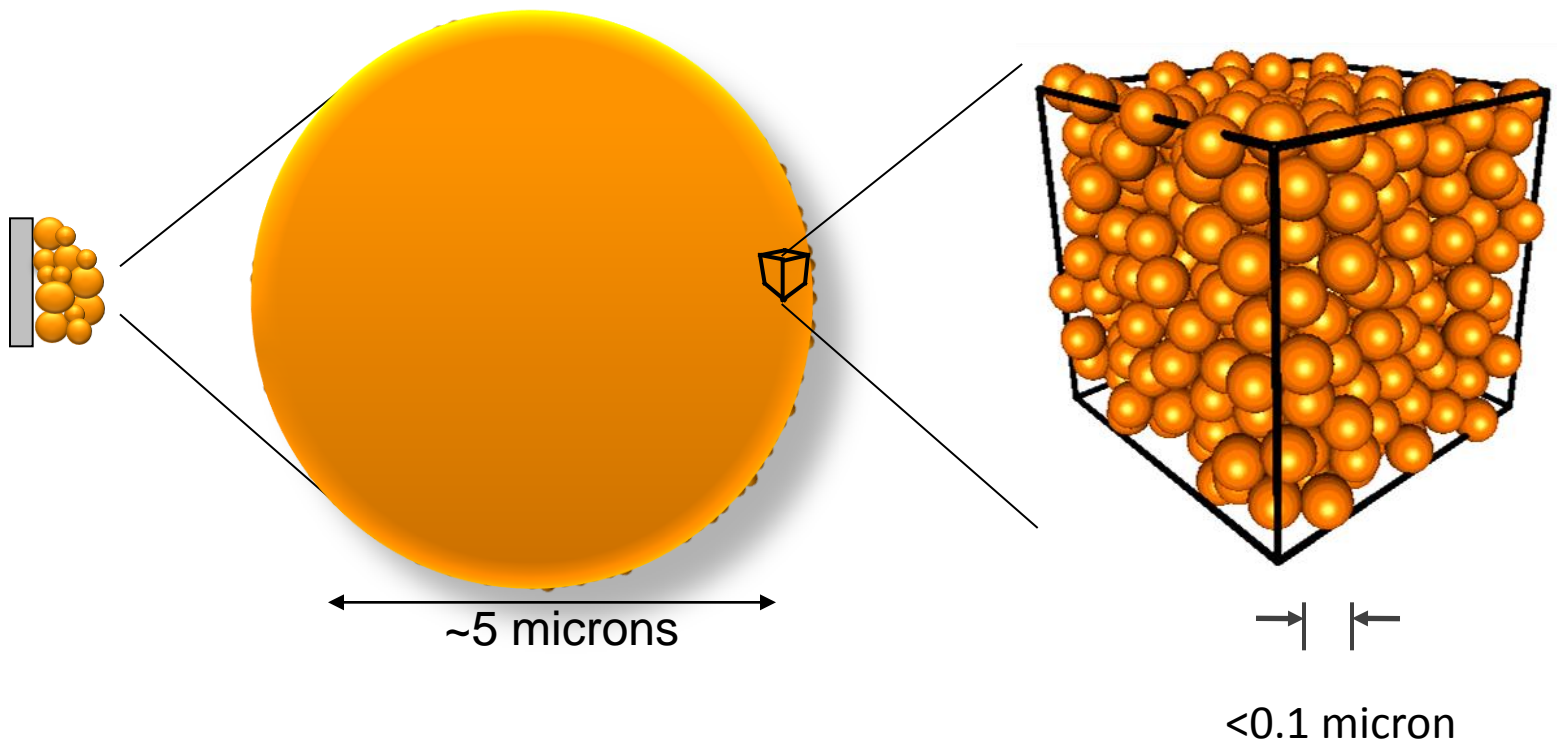
- 2x energy density, ½ the manufacturing cost
- New battery architecture achieved through self-organization
- A_{123} holds exclusive world wide license

There was just one problem... it didn't work!

Companies are about people, not technology



Technology is a key differentiator



Leverage government funding



2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011



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Take the long view

(easier with experienced management team)



2001

2002

2003

2004

2005

2006

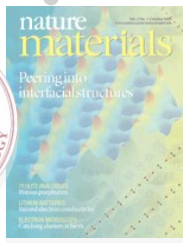
2007

2008

2009

2010

2011



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Find a champion



2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

2011



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ENERGY
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...and set the industry in a new direction

The Power of Corded Without the Cord™

- A123's batteries enabled BDK to create a new generation of power tools that surpassed the performance capabilities of electric power tools and other battery-powered tools:
 - + Higher performance
 - + Faster
 - + Higher power
 - + Lighter
 - + Faster charging



Simplify your message



High Power / Energy Capacity



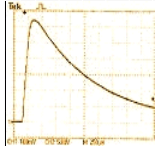
Long Calendar Life



Safety



Rapid Charging



Low Power Degradation



Reduced Size and Weight



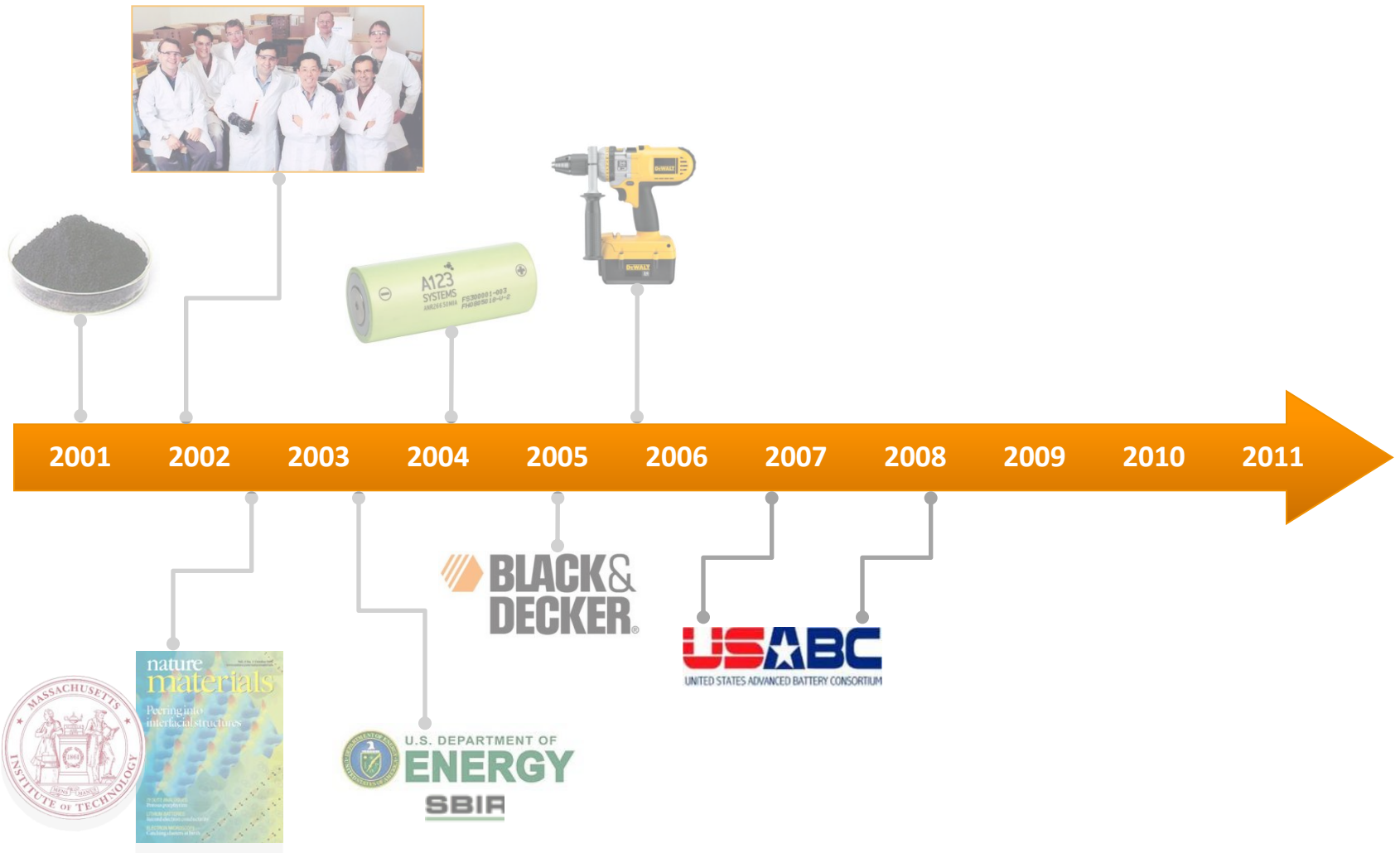
Non-Toxic Materials



Competitive Cost/Performance

power. safety. life.

Get independent third-party confirmation



Diversify your customer base



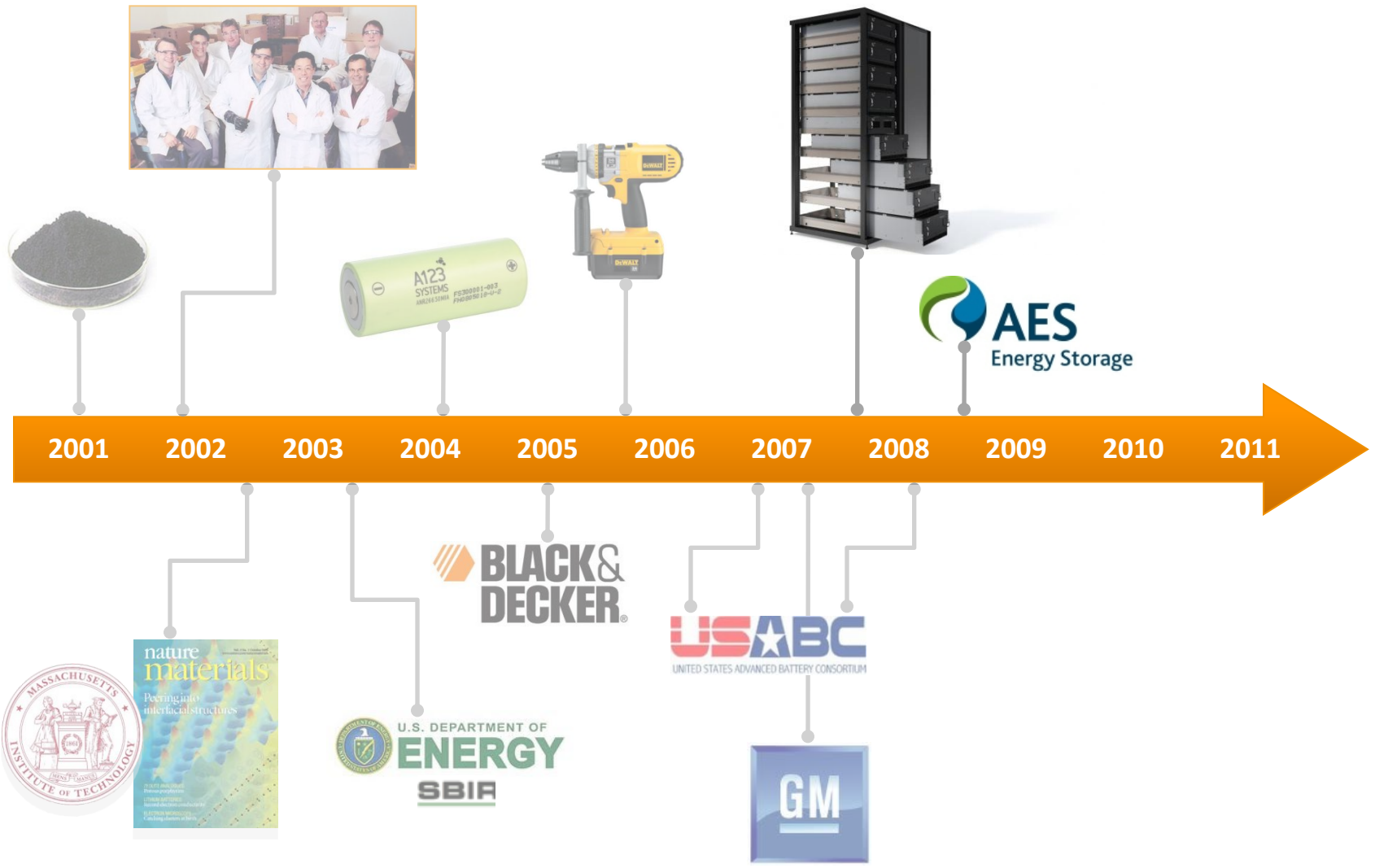
2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011



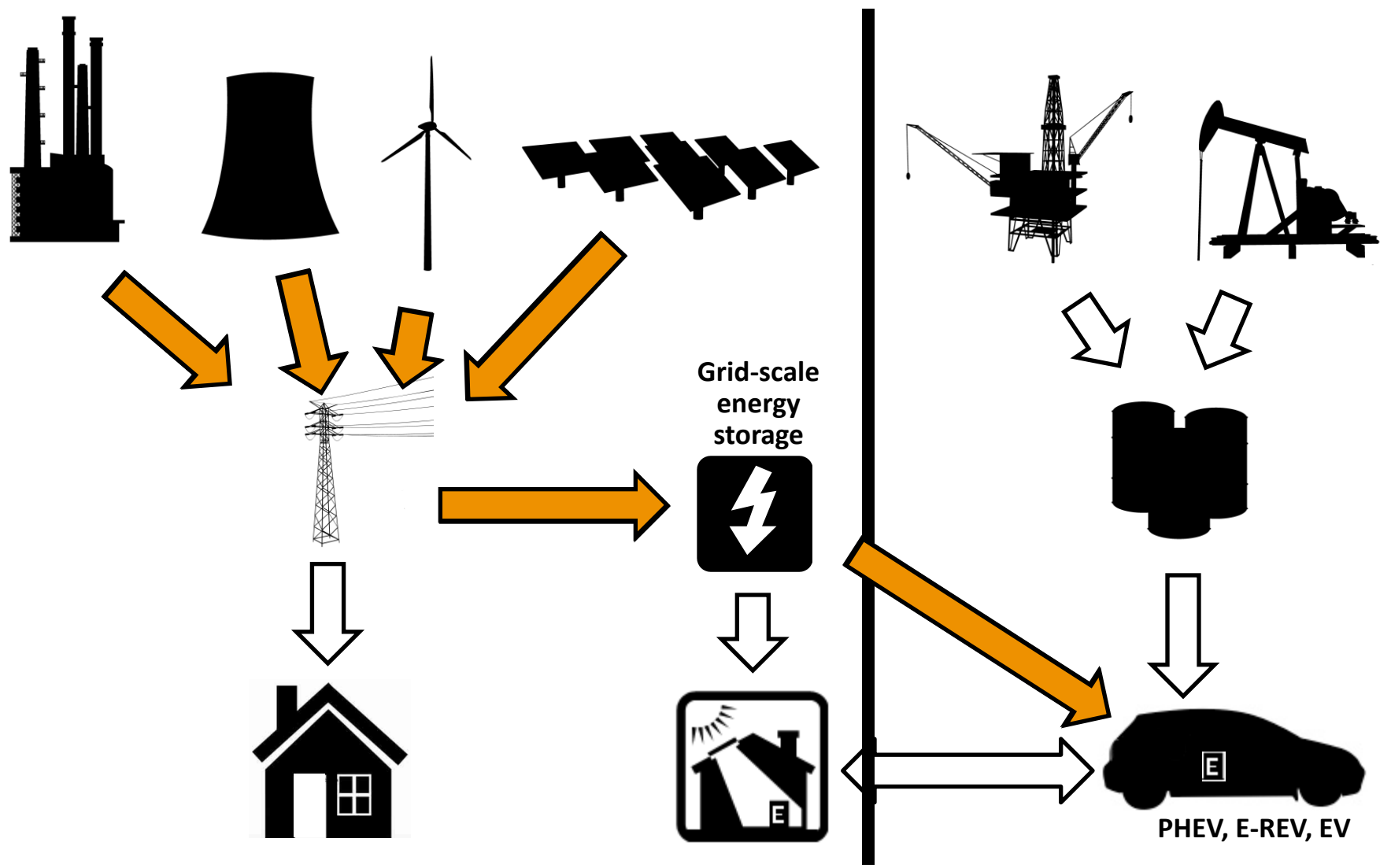
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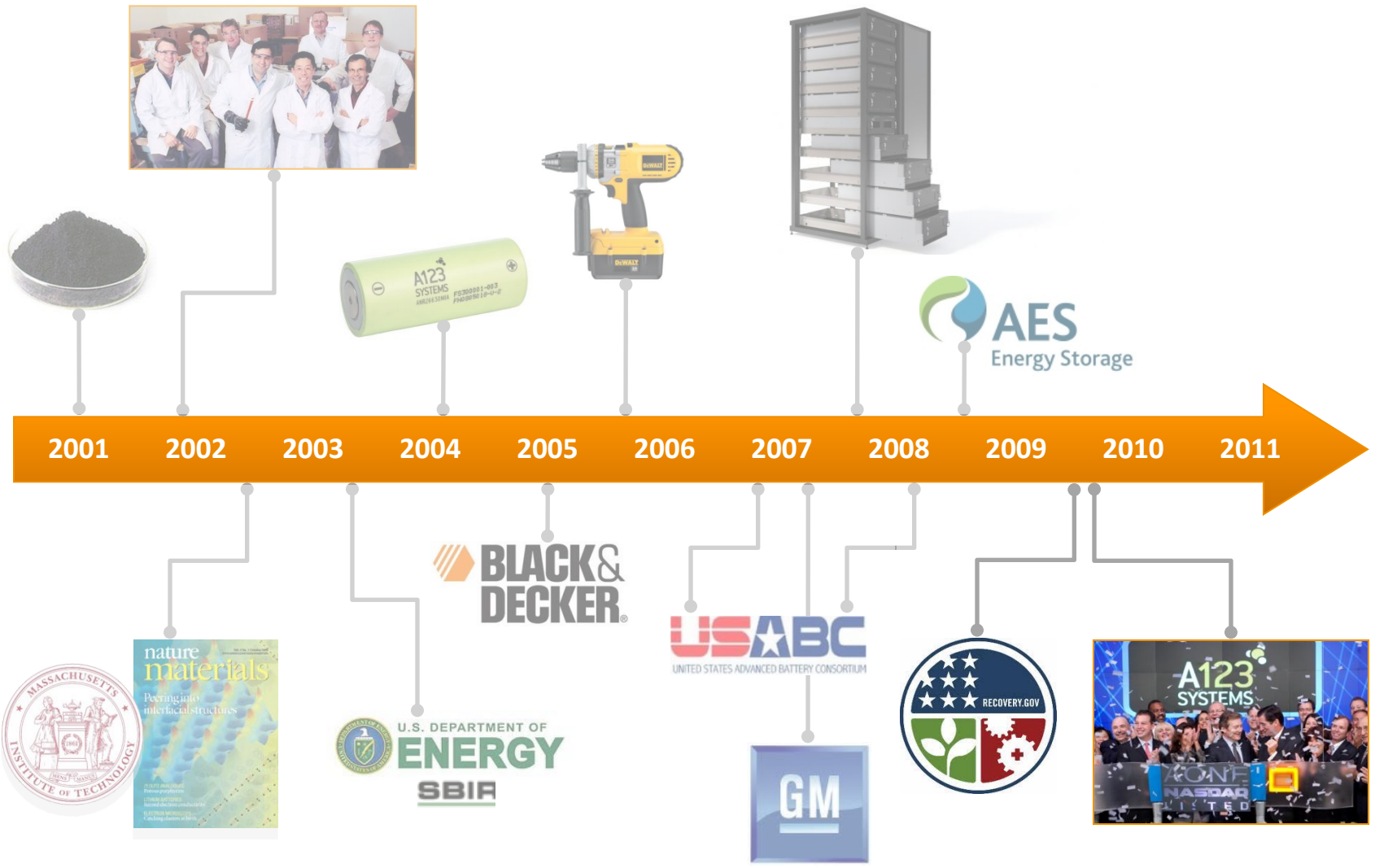
Create the market, if it doesn't exist yet



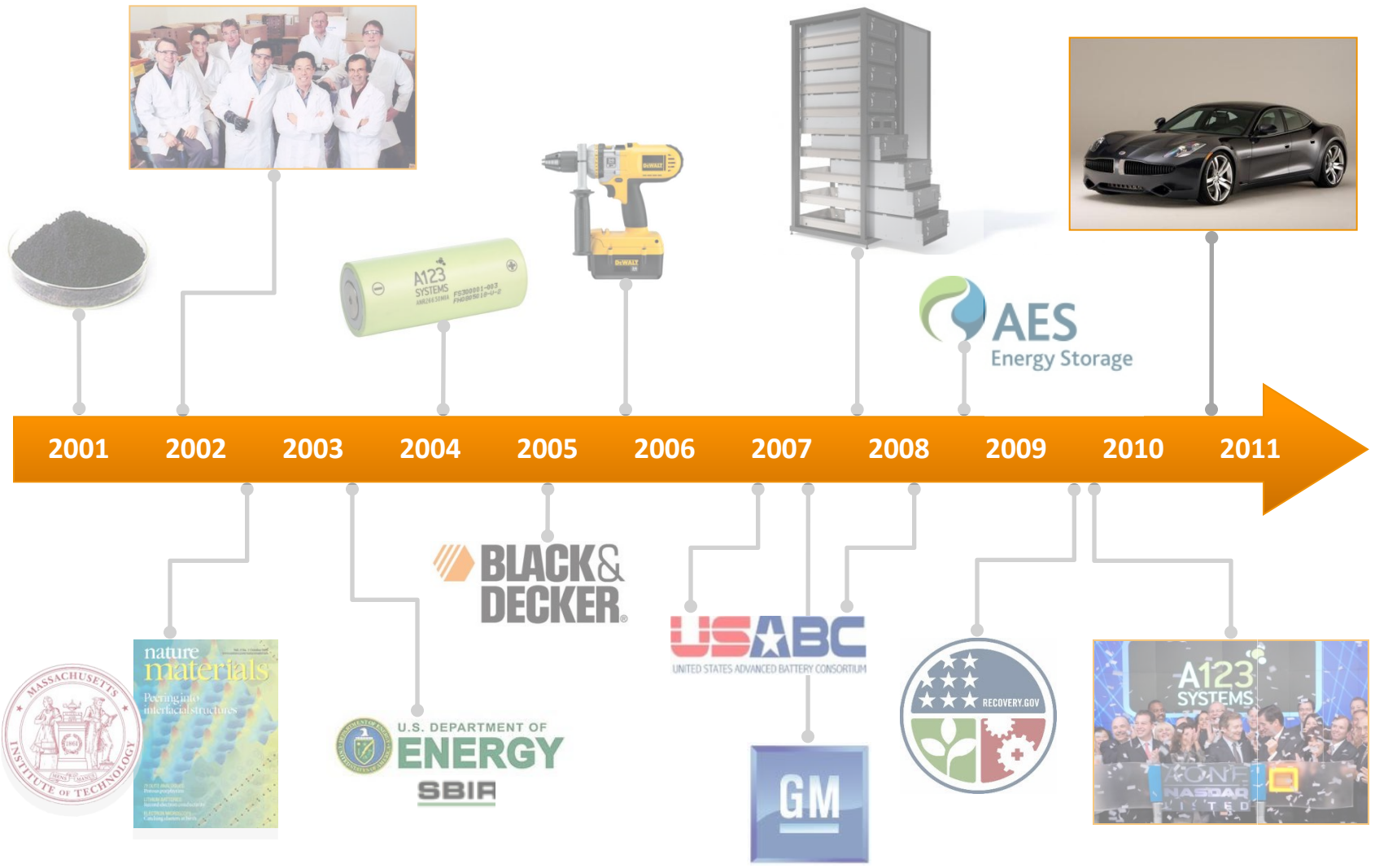
Participate in the paradigm shift



Seize the opportunities that come along



Find partners that share your vision



Our History

