



From startups to TeraFactory

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How to eat risks for breakfast

A Short Intro

- ✓ Jukka Järvinen, 42
- ✓ Building startups in series and parallel
=> A Matrix Entrepreneur
- ✓ Electric vehicle enthusiast since 1992
- ✓ Branded myself as "akkuJukka"
- ✓ "akku" in Finnish is a battery
- ✓ Reads the same backwards



Life Priorities

- ✓ Passion to create
- ✓ Pushing the technology further
- ✓ "Learn a new thing every day"
- ✓ Everyone has a talent
- ✓ Talents are meant to be utilized



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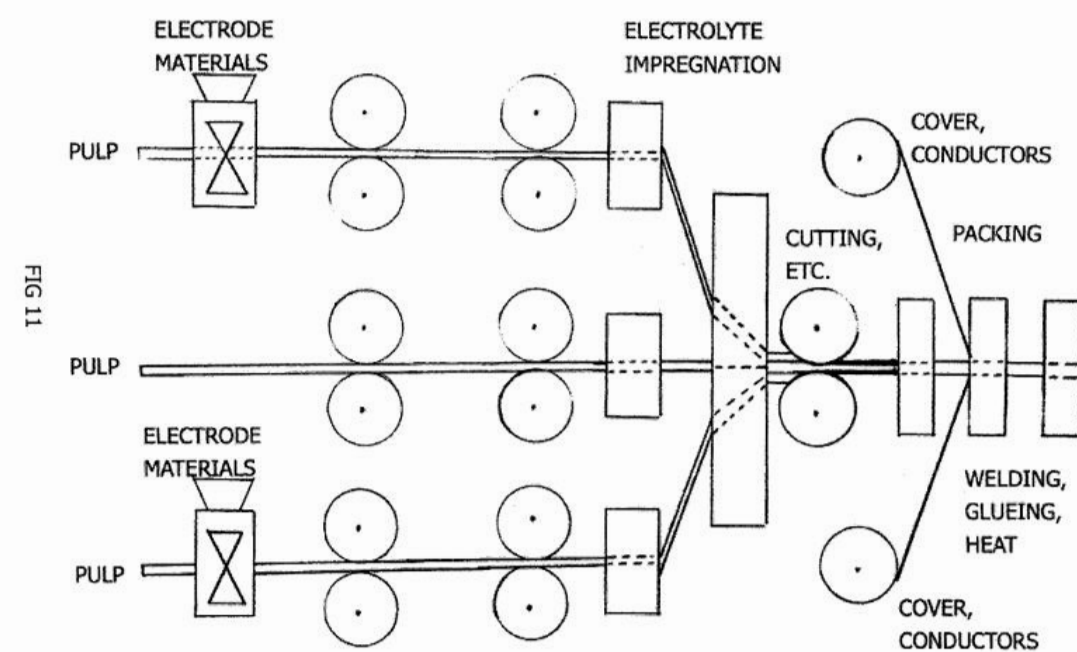
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[54] 发明名称
用于管理蓄电池单元的方法和装置

[57] 摘要
本发明提供了一种通过单独测量来管理可充电串联连接单元(C1、C2、C3)的方法和装置。通过在单元充电、放电或放电周期的过程期间监测每个单元来测量单元特性并且通过操纵不一致的单元来调节它们特性从而减轻单元间差异。



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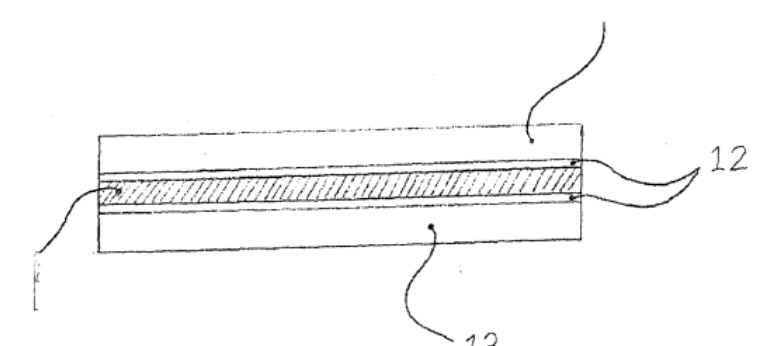
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(86) PCT No.: PCT/FI2014/000010 (57) ABSTRACT
 A rechargeable battery cell comprises a separator (10) as a load bearing vessel for supporting positive (13+) and negative (13-) electrodes that are attached by embedding and/or by coating or laminating at opposite ends of the separator (10). A carbon structure (12) can be embedded or coated on the separator (10). The carbon structure (12) can be a nanostructure or a carbon nanofiber structure for mechanically strengthening and stabilizing the separator (10) surface.

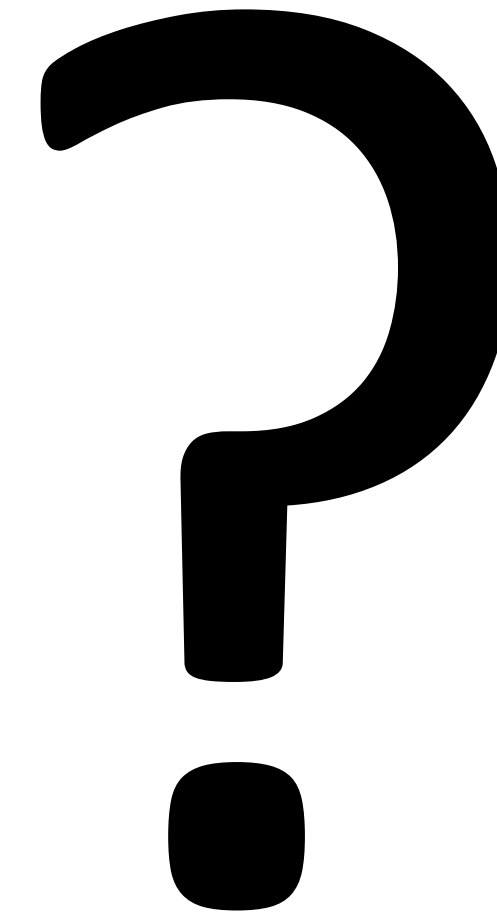
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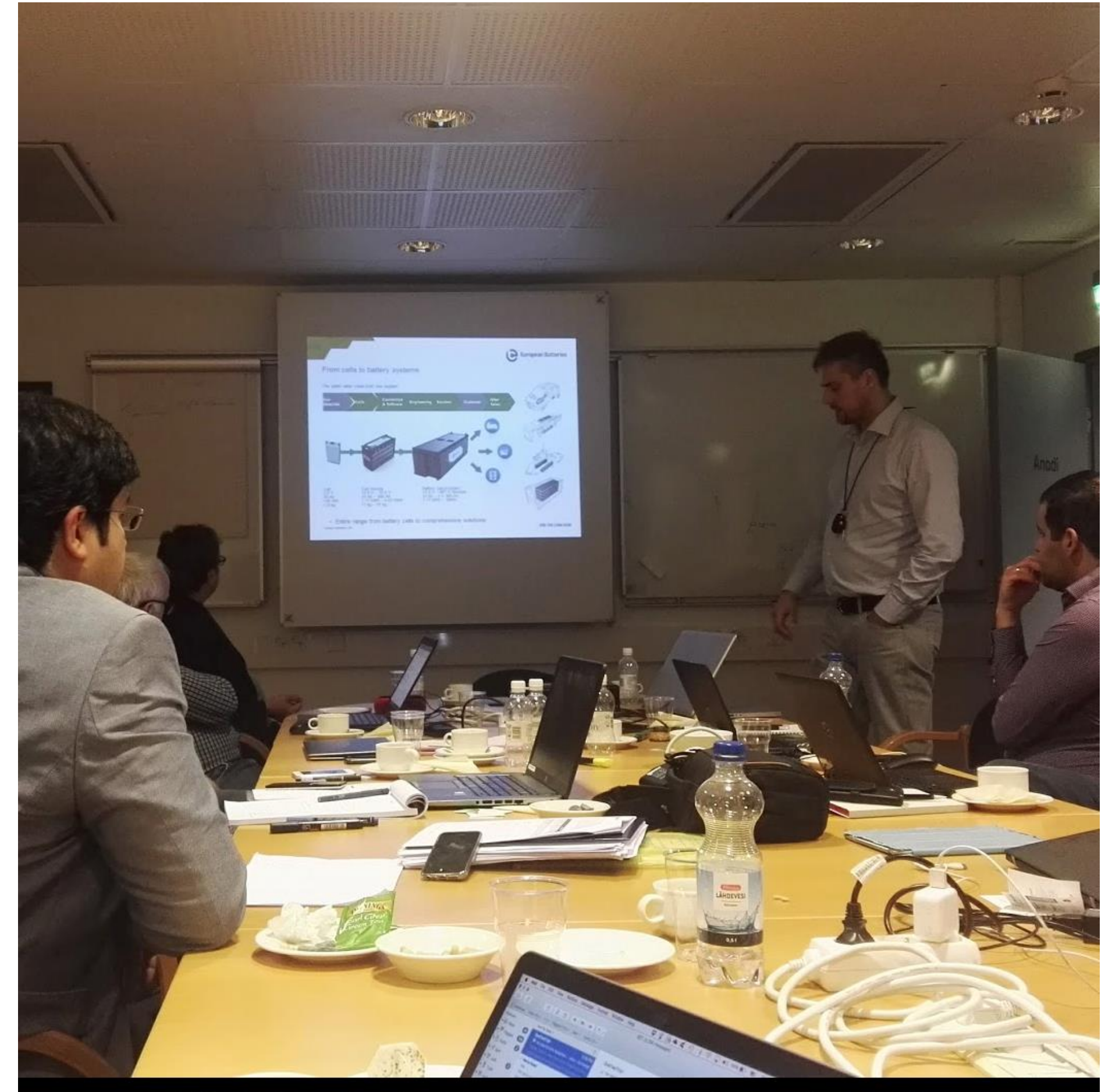
Just Before The Start

- ✓ Idea refined enough?
- ✓ Does the market **really** exist?
- ✓ The gut feeling?
- ✓ Accept failure - only way to know is to try it out
- ✓ Take the leap
- ✓ Hibernate 1-2 years if needed



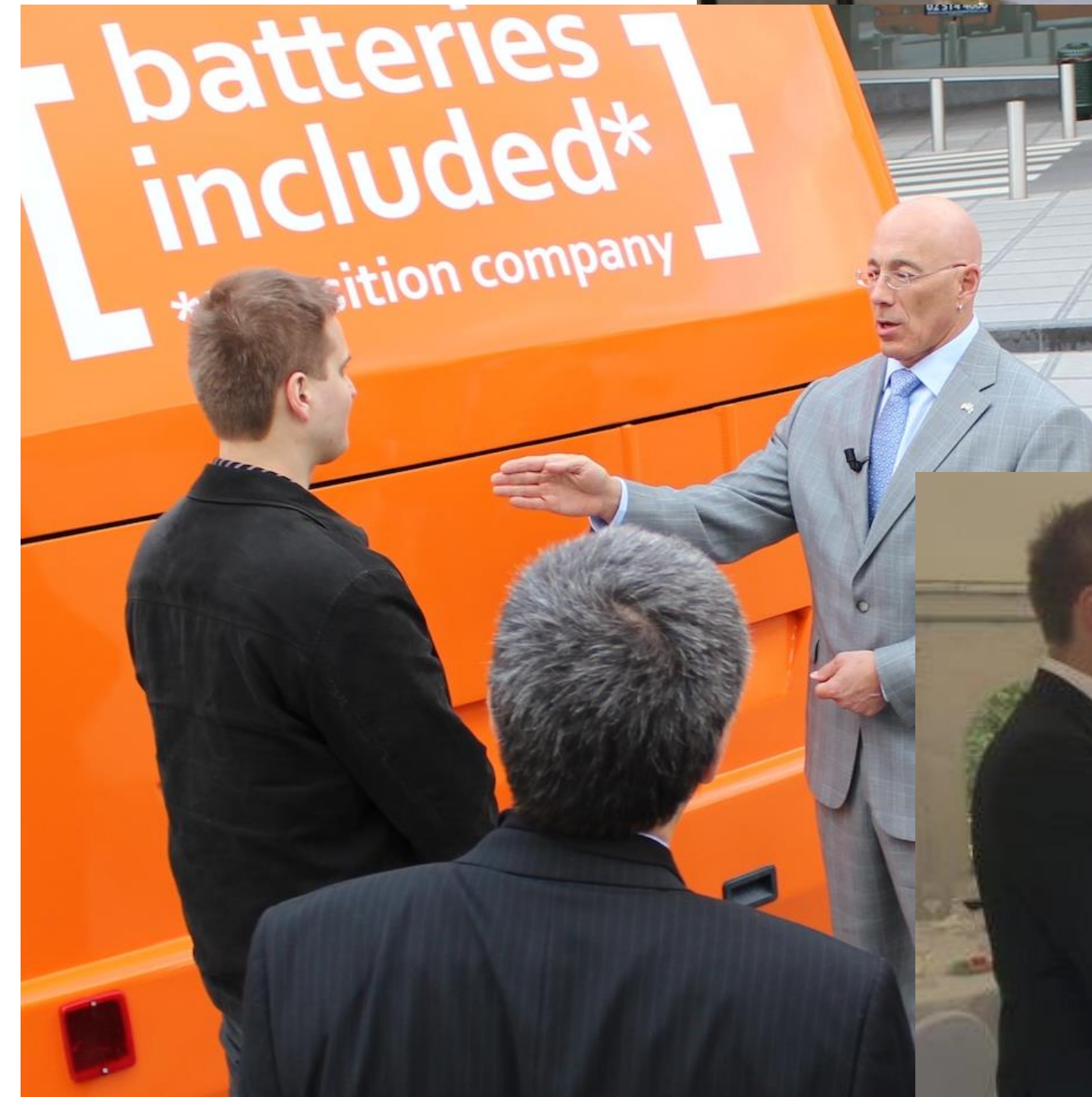
Strategy Bases On Risks

- ✓ Think of all the risks
- ✓ Base the strategy on the risks
- ✓ Build the business plan - in the head
- ✓ Write if you need to. Not a must.
- ✓ Everything changes all the time - update plans as you go



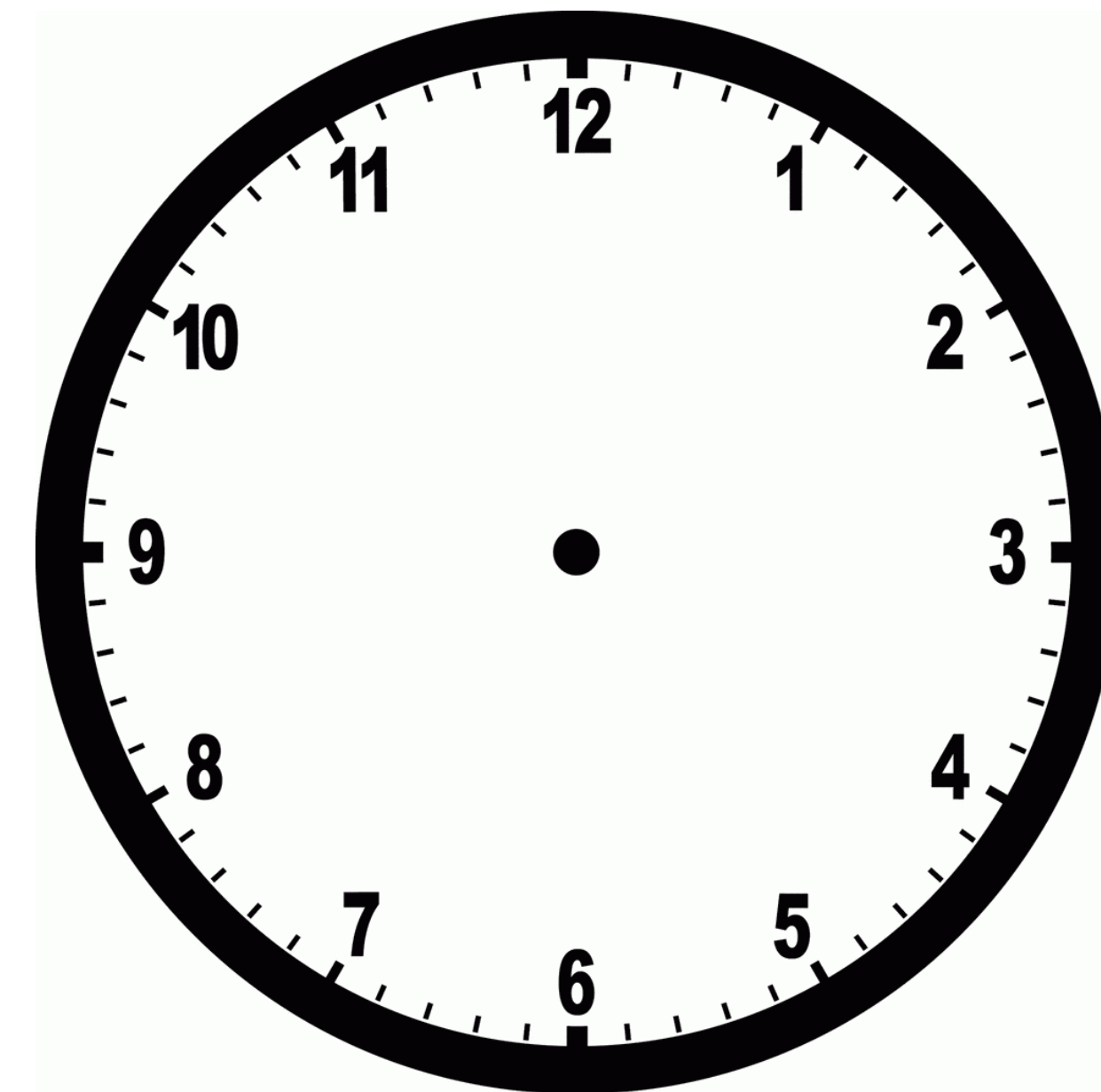
Team It Up

- ✓ 1st year can go alone - build the business case
- ✓ Keep meeting people
- ✓ Find opinions and open minds
- ✓ Allow strays and follow them up
- ✓ Steer - do not micro manage
- ✓ Investors can also participate - important to enable!



Standard Timeline

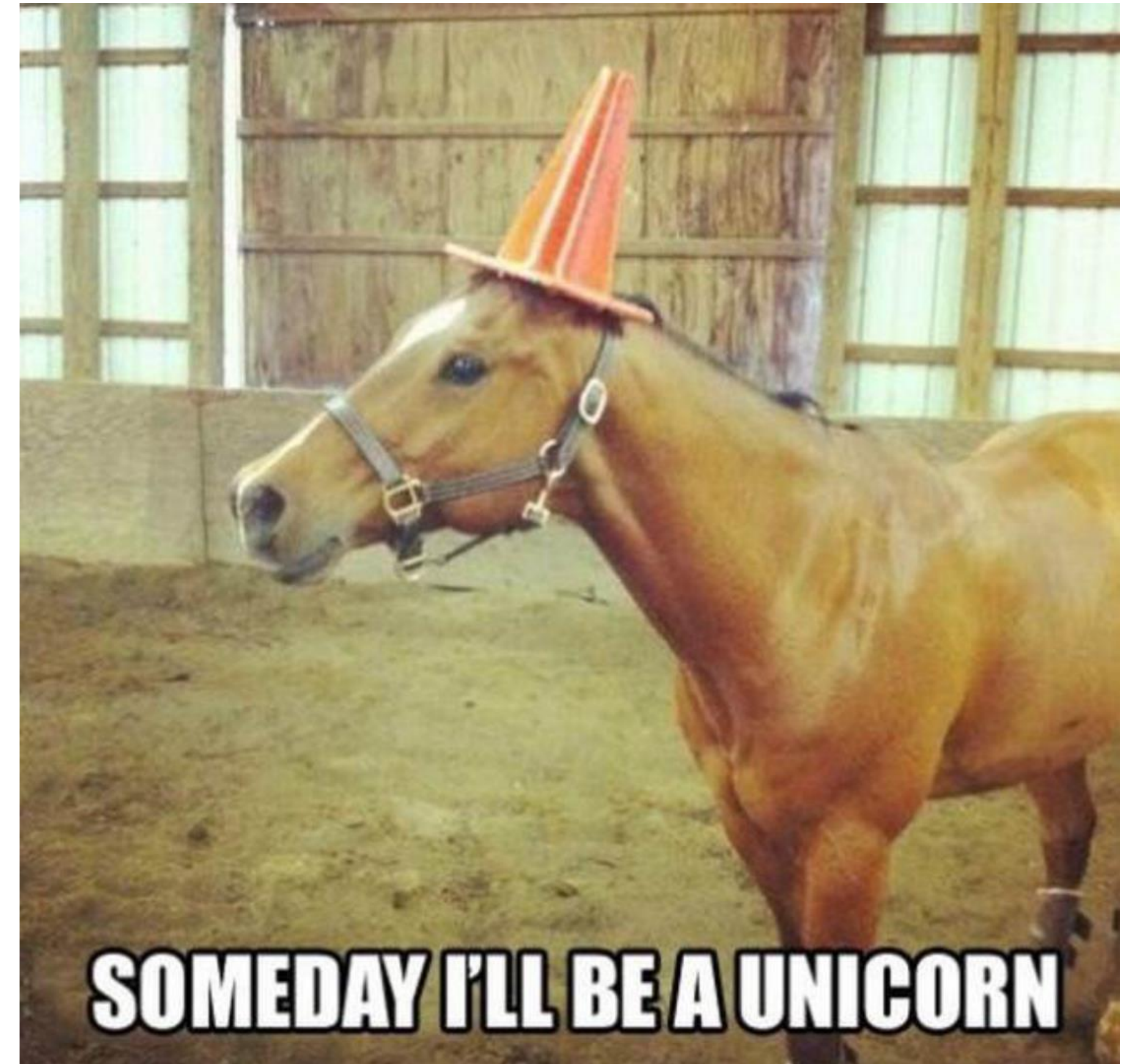
- ✓ 6 to 12 m - base team
- ✓ 12 m - prove the business case
- ✓ 24 m - concepts
- ✓ 36 m - commercial traction
- ✓ 48 m - A round for growth
- ✓ 60 to 72 m - partial/full exit



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Challenge The Norm

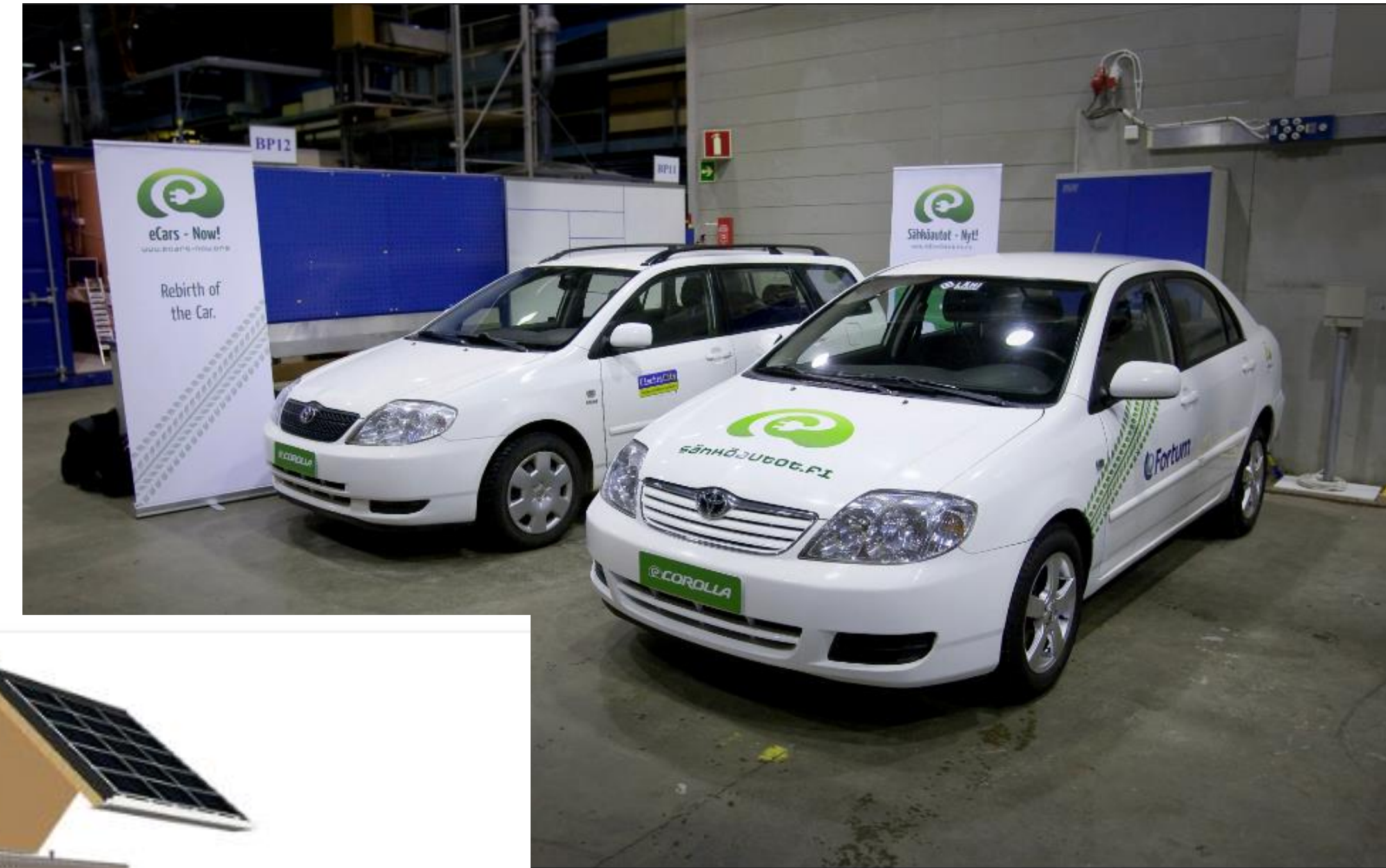
- ✓ Baby unicorns are everywhere
- ✓ They are not found - they are created
- ✓ Riding it requires luck *and* skills
- ✓ There is a chance for a disruption behind every corner
- ✓ Identify the hardest thing to do and do it - no competition



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Inducing the Disruption

- ✓ Disruption can be induced and primed
- ✓ Identify the issue and prepare the narrative
- ✓ Open the public dialogue
- ✓ Build the demand for the solution
- ✓ Solve the problem
- ✓ Participate the users



One TWh startup

- ✓ Create something unseen so far in the battery industry
- ✓ Full vertical integration
- ✓ From mines to PPAs
- ✓ Optimized and customized supply chain
- ✓ Grande Finale of nearly a decade worth of hard work



Finland will become the epicenter of battery energy storage disruption !

Thank You !