



MARK ZINDER
— AND —
ASSOCIATES



What Happens Next?



The Top 10 Money Managers of the 20th Century:



1. Warren Buffett

2. Peter Lynch

3. Sir John Templeton

4. Benjamin Graham

5. George Soros

6. John Neff

7. John Bogle

8. Michael Price

9. Julian Robertson

10. Dr. Mark Mobius

What Happens Next?



Perceptual Blindness



How many times did they pass the ball?

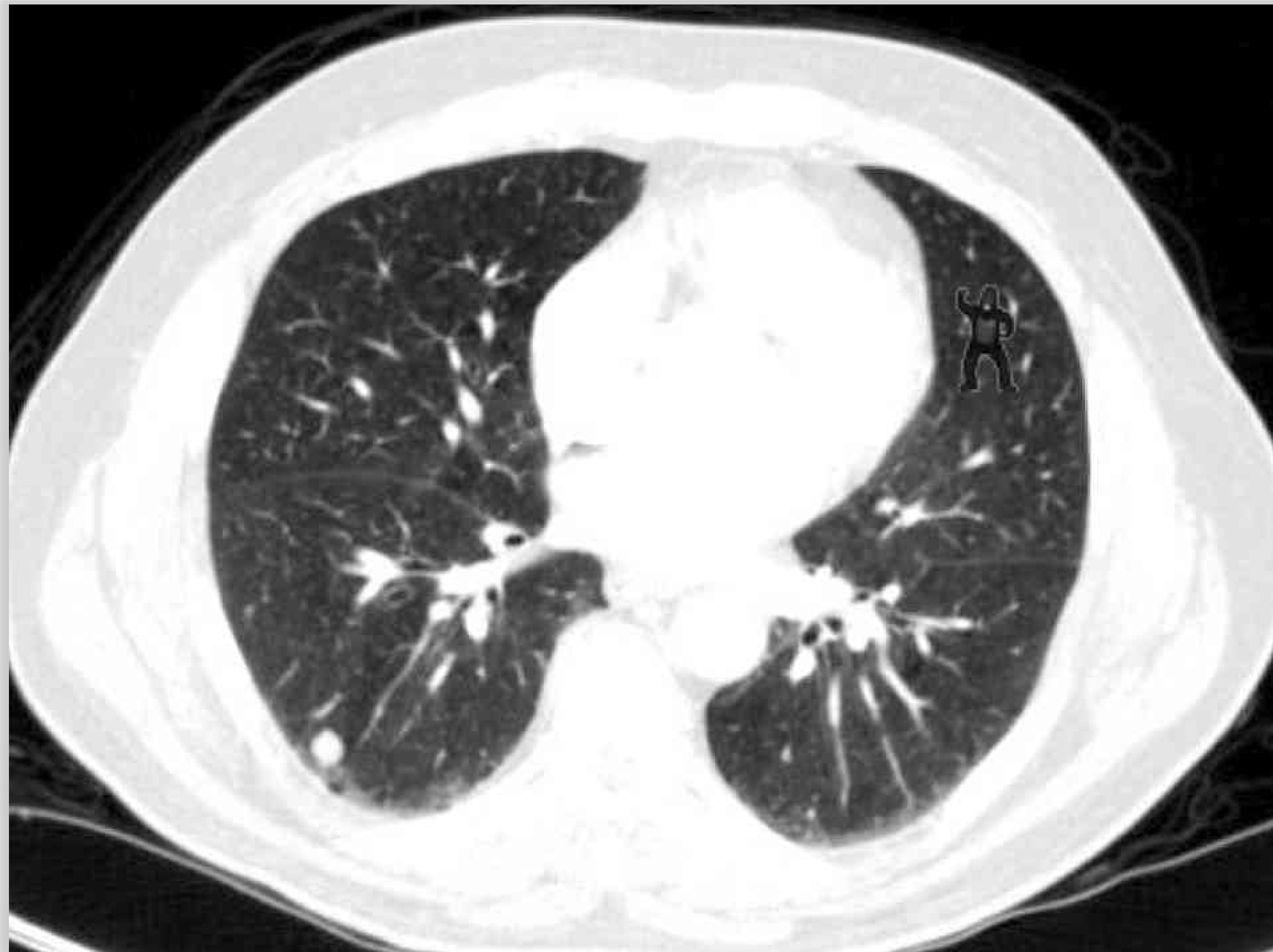
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Did you see the gorilla?

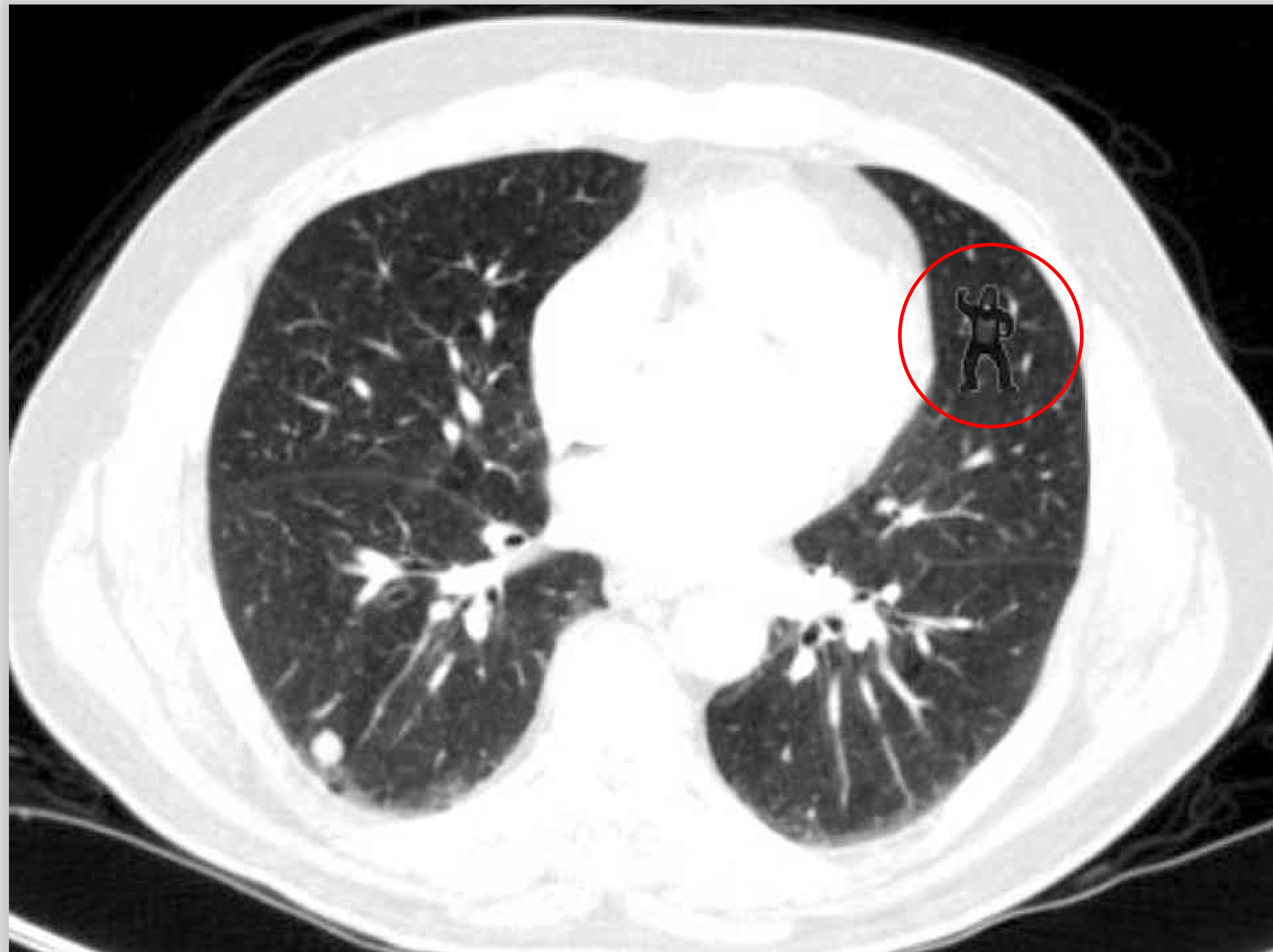
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50%





Did you see the gorilla?



50%
83%

“What we *focus on*, filters
the world around us so
aggressively, that it actually
limits what we *see*.”

Creative Destruction

When you *create*
something new...
you *destroy*
something old!



Necessity is the Mother of Invention

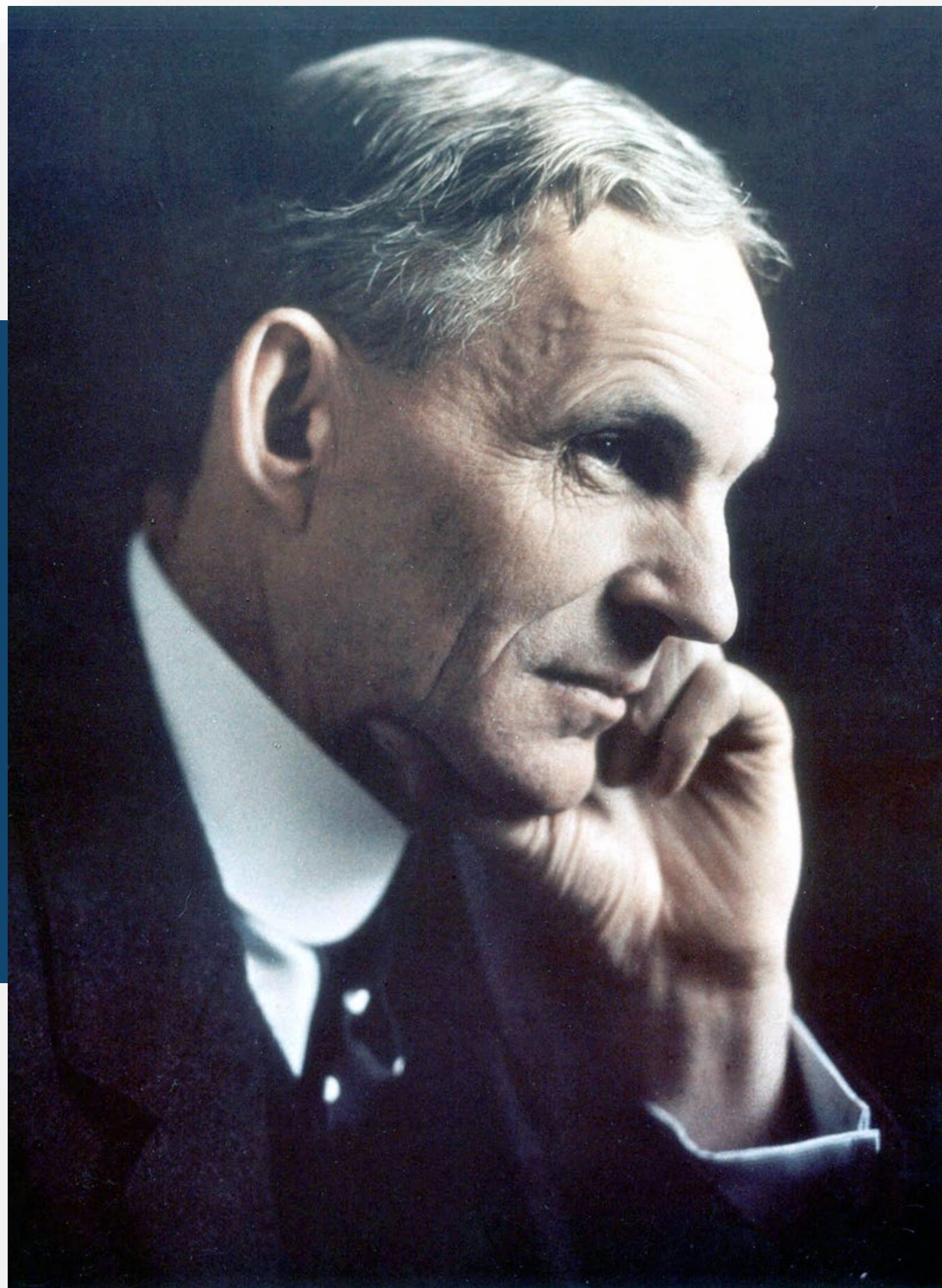


1880 – New York City

**1898 – The world's first
international urban planning
conference**

They did the math...

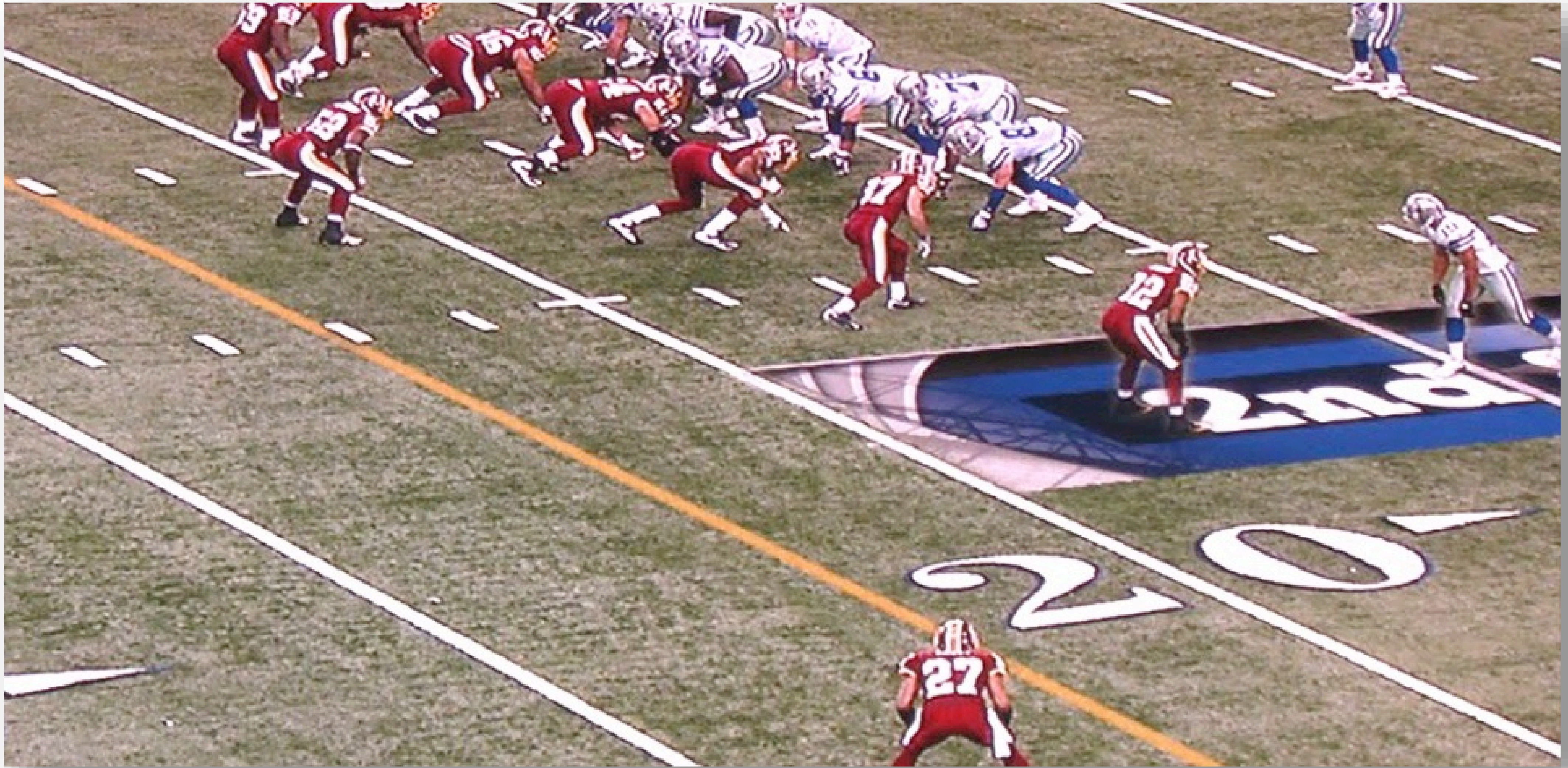




“The biggest problems with my customers is they can only extrapolate the present. If I had asked my customers what they wanted from Ford Motor Company, they would have said a faster horse.”

-Henry Ford, 1913















Idea

Exotic Curiosity

Early Adoption

General Acceptance

Frenzy

Collapse

Final Build-out

It Becomes Invisible



IDEA

EXOTIC
CURIOSITY

EARLY
ADOPTION

GENERAL
ACCEPTANCE

FRENZY

COLLAPSE

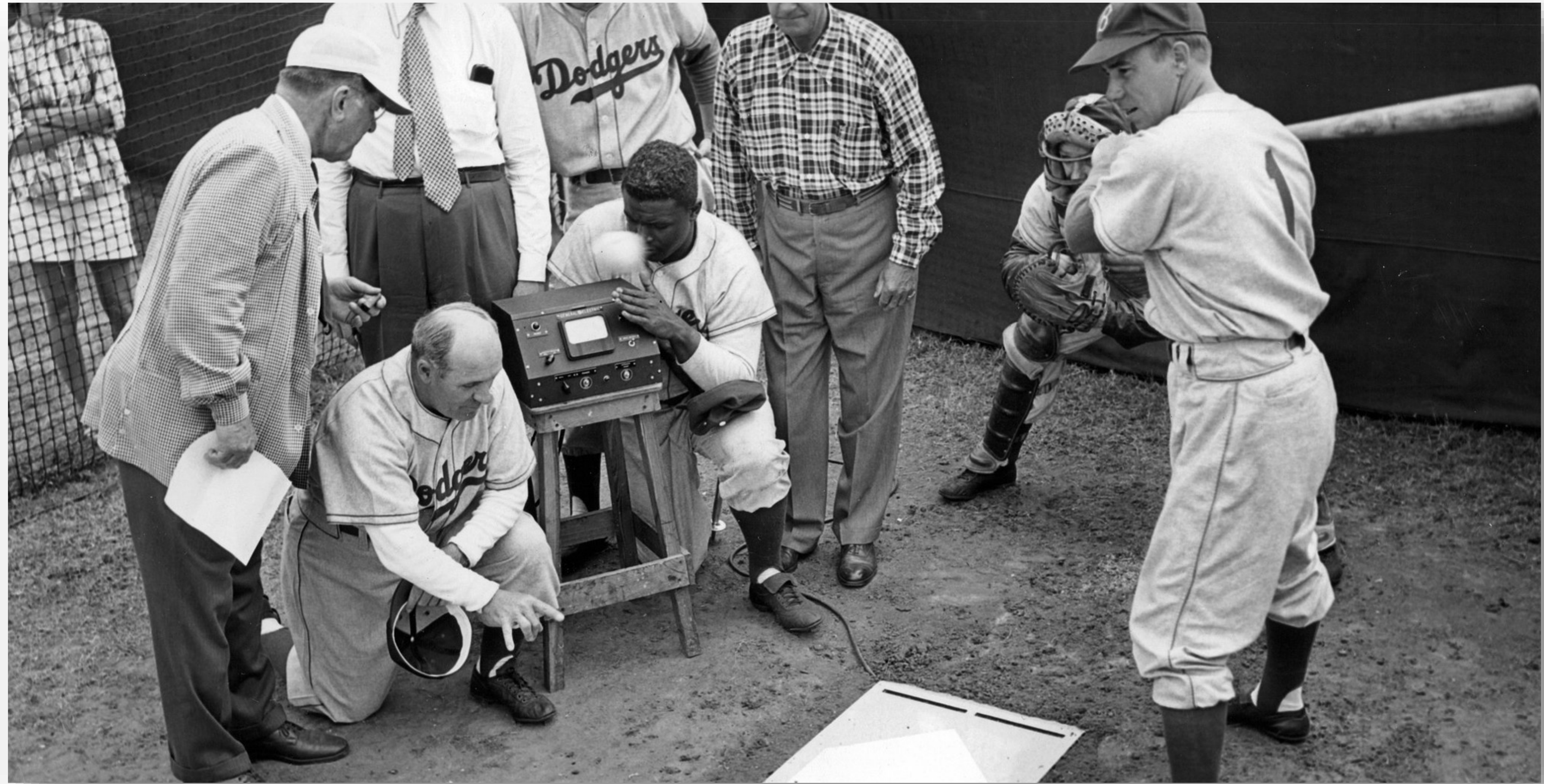
BUILD-OUT

BECOMES
INVISIBLE

Strike Zone



March, 1950 – The Electronic Umpire



March, 1950 – The Electronic Umpire





- The new technology achieves success in early demonstrations
- People are often frightened of the new technology

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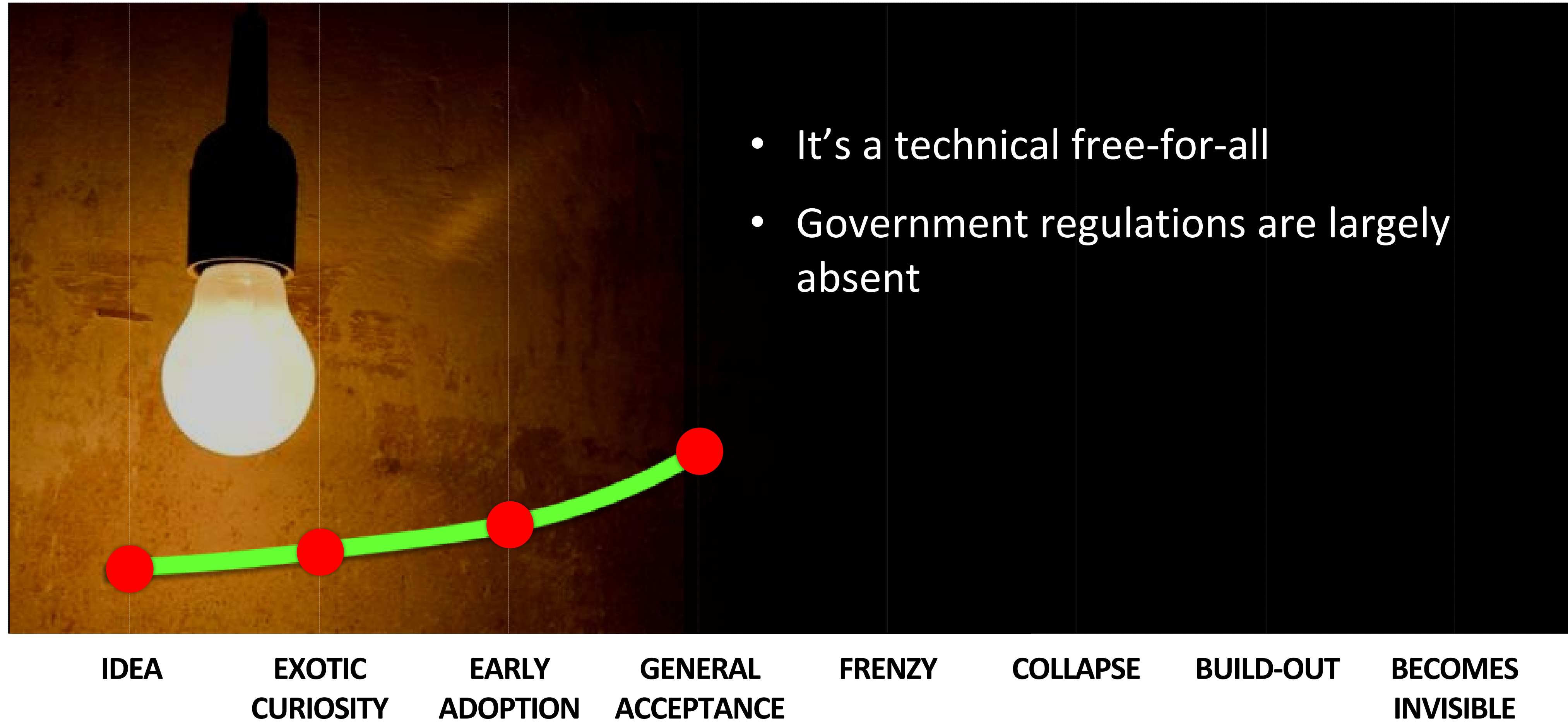
COLLAPSE

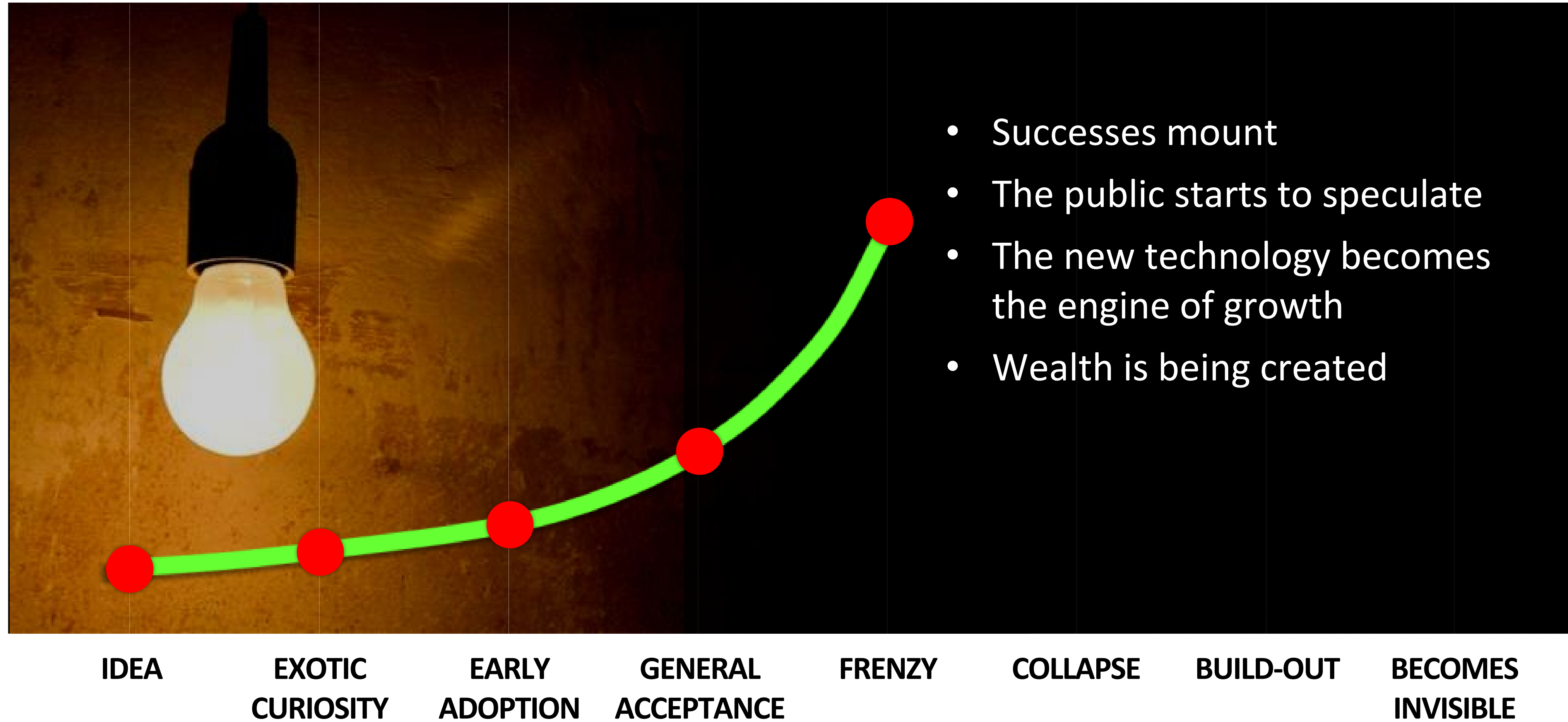
BUILD-OUT

BECOMES
INVISIBLE

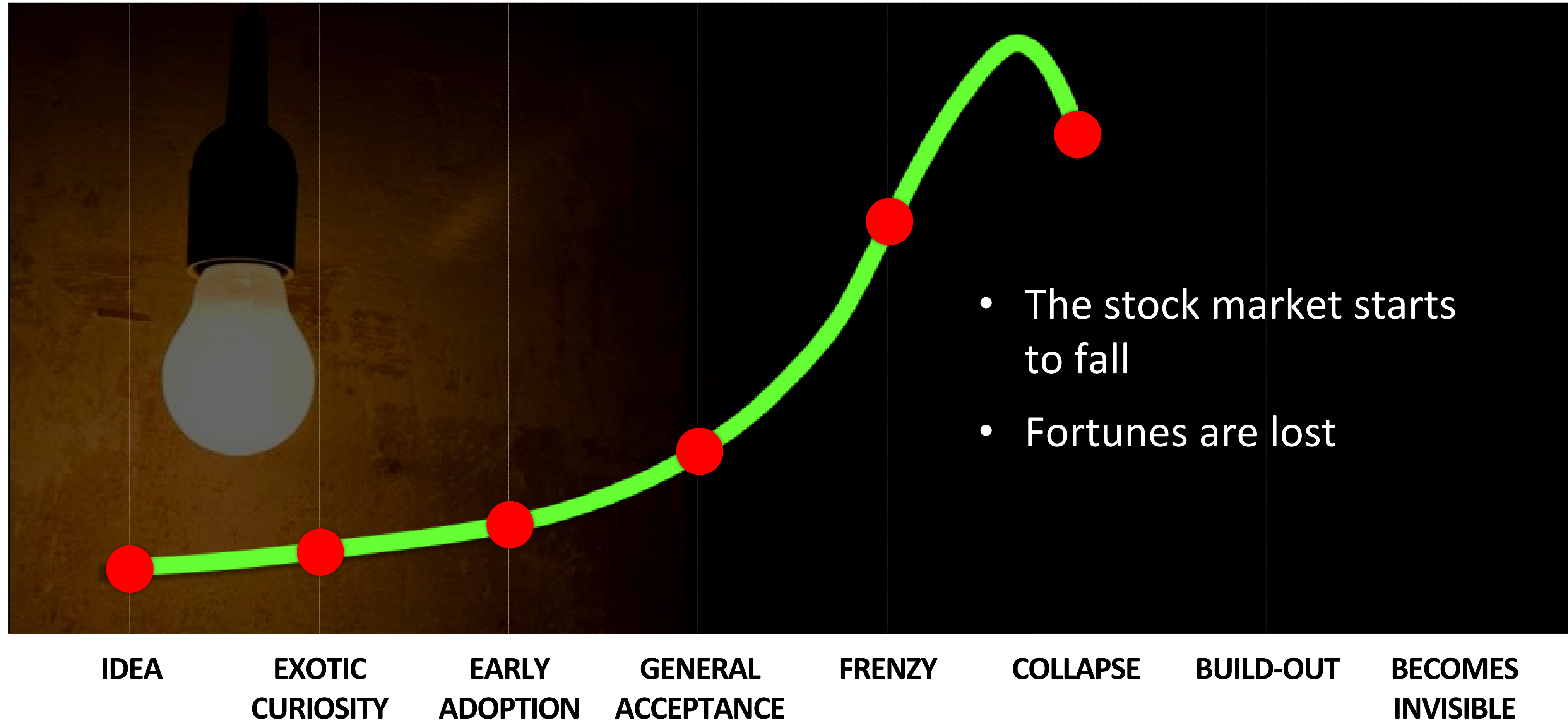


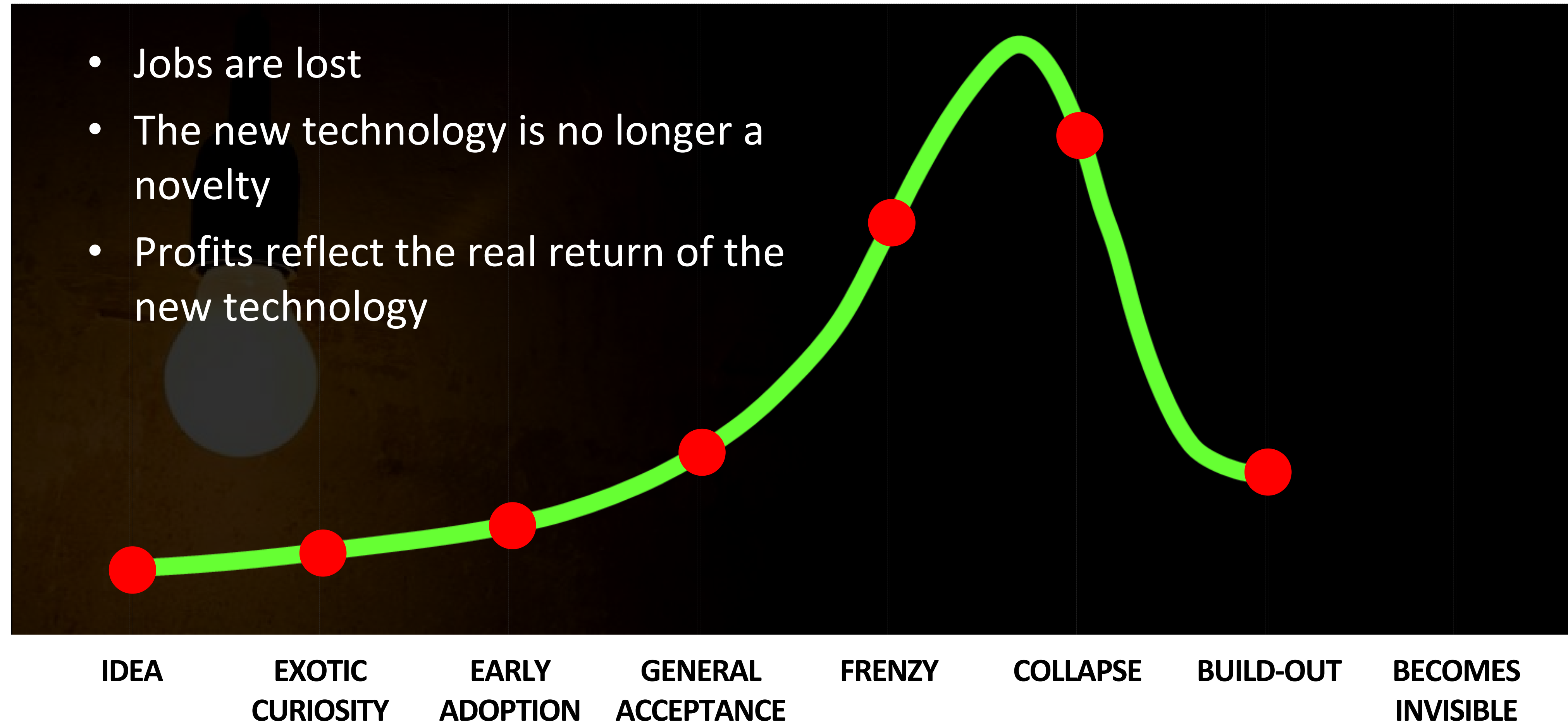
General Acceptance



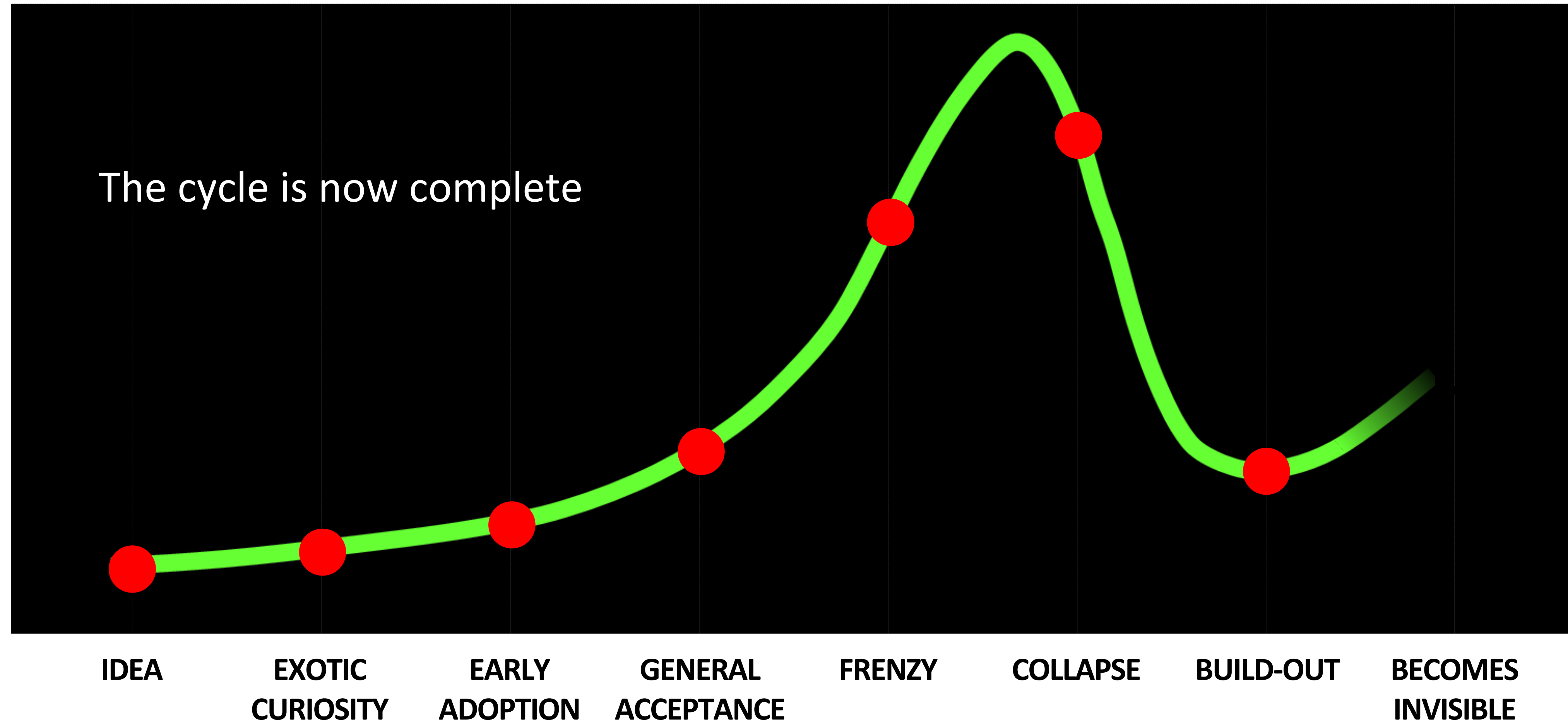


Collapse

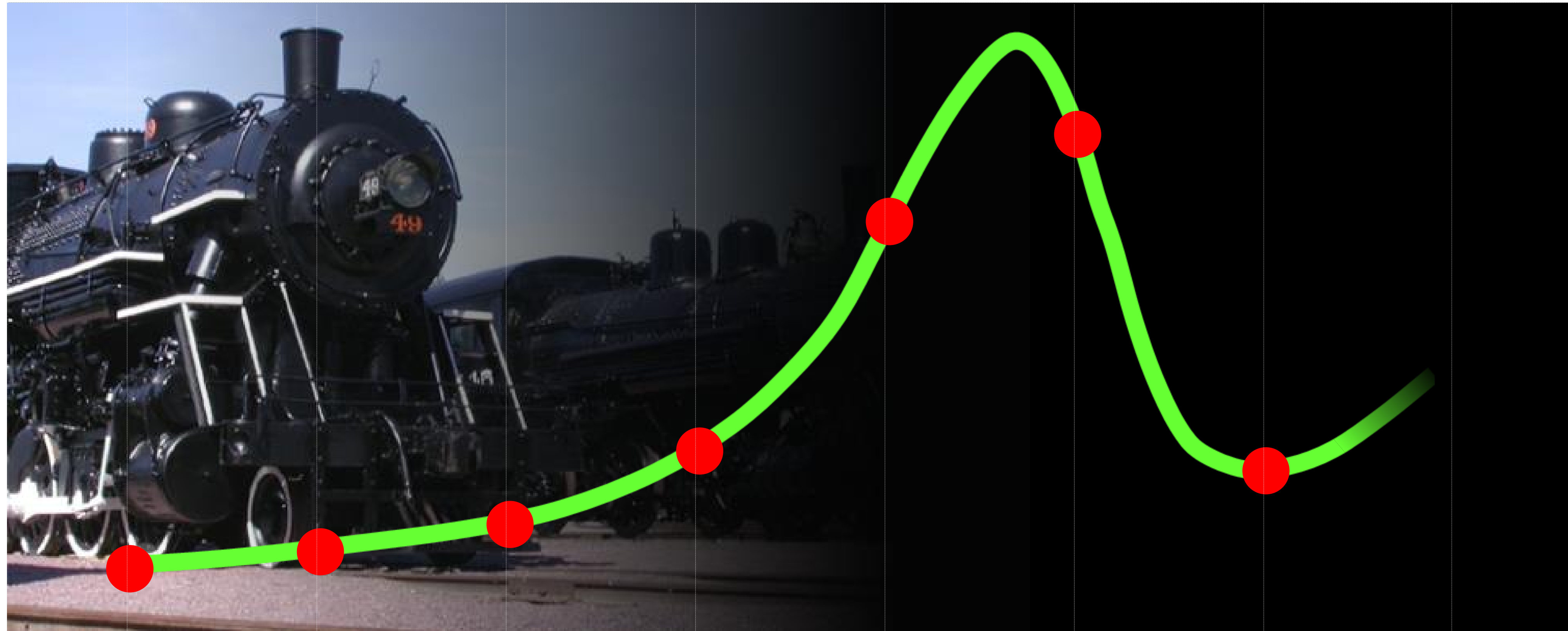




It Becomes Invisible



Railroads



IDEA

**EXOTIC
CURIOSITY**

**EARLY
ADOPTION**

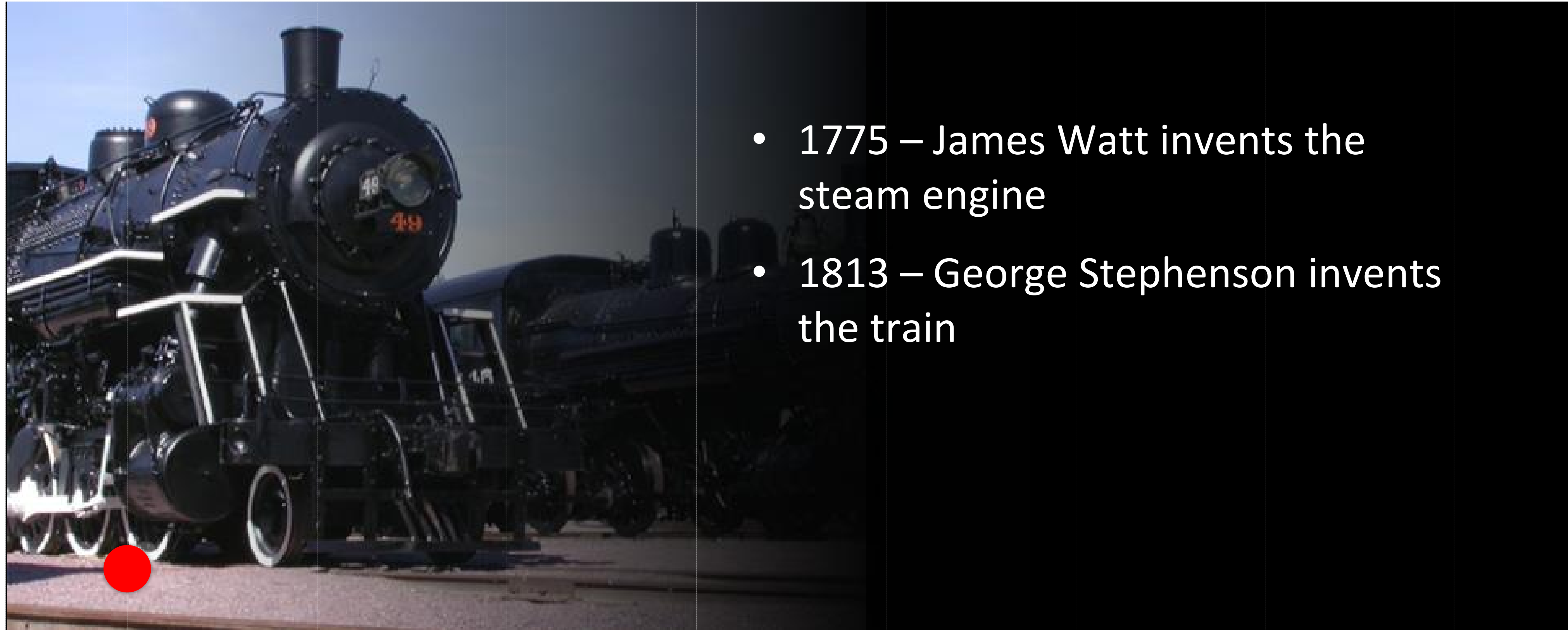
**GENERAL
ACCEPTANCE**

FRENZY

COLLAPSE

BUILD-OUT

**BECOMES
INVISIBLE**



- 1775 – James Watt invents the steam engine
- 1813 – George Stephenson invents the train

IDEA

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BECOMES
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Exotic Curiosity



- 1829 – L&M sponsored the Rainhill Trials contest

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BECOMES
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Early Adoption



- 1830 – L&M purchases six trains

IDEA

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GENERAL
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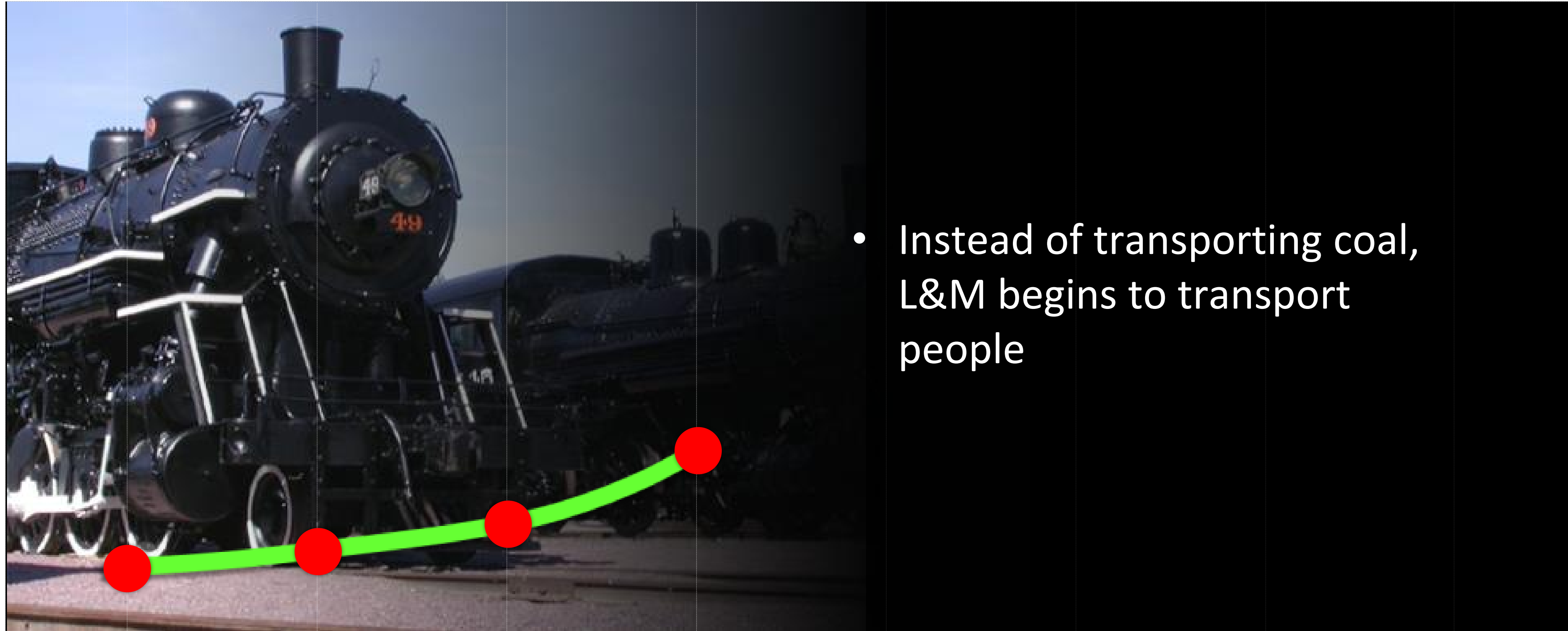
FRENZY

COLLAPSE

BUILD-OUT

BECOMES
INVISIBLE

General Acceptance



- Instead of transporting coal, L&M begins to transport people

IDEA

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BUILD-OUT

BECOMES
INVISIBLE



- Entrepreneurs emerge
- Wealth is created
- A more prosperous economy develops
- 1843/44 – The railroad mania was raging

IDEA

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EARLY
ADOPTION

GENERAL
ACCEPTANCE

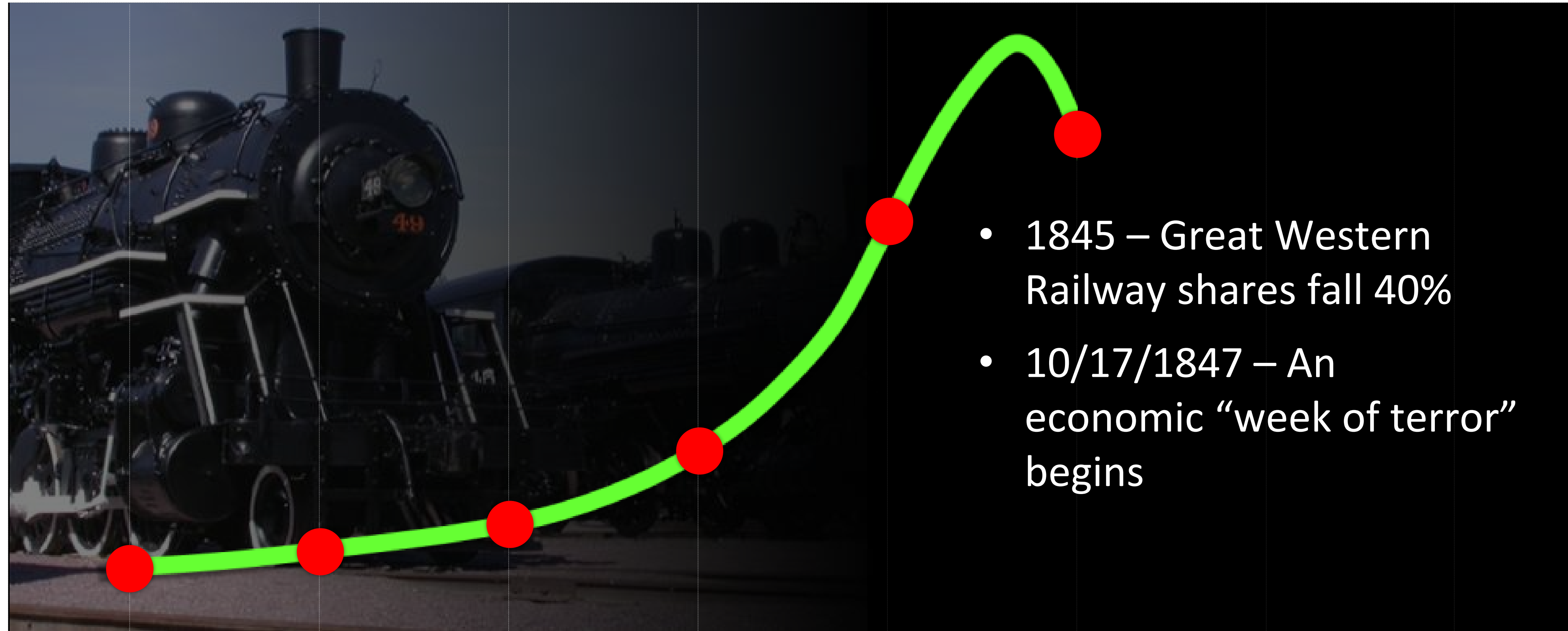
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COLLAPSE

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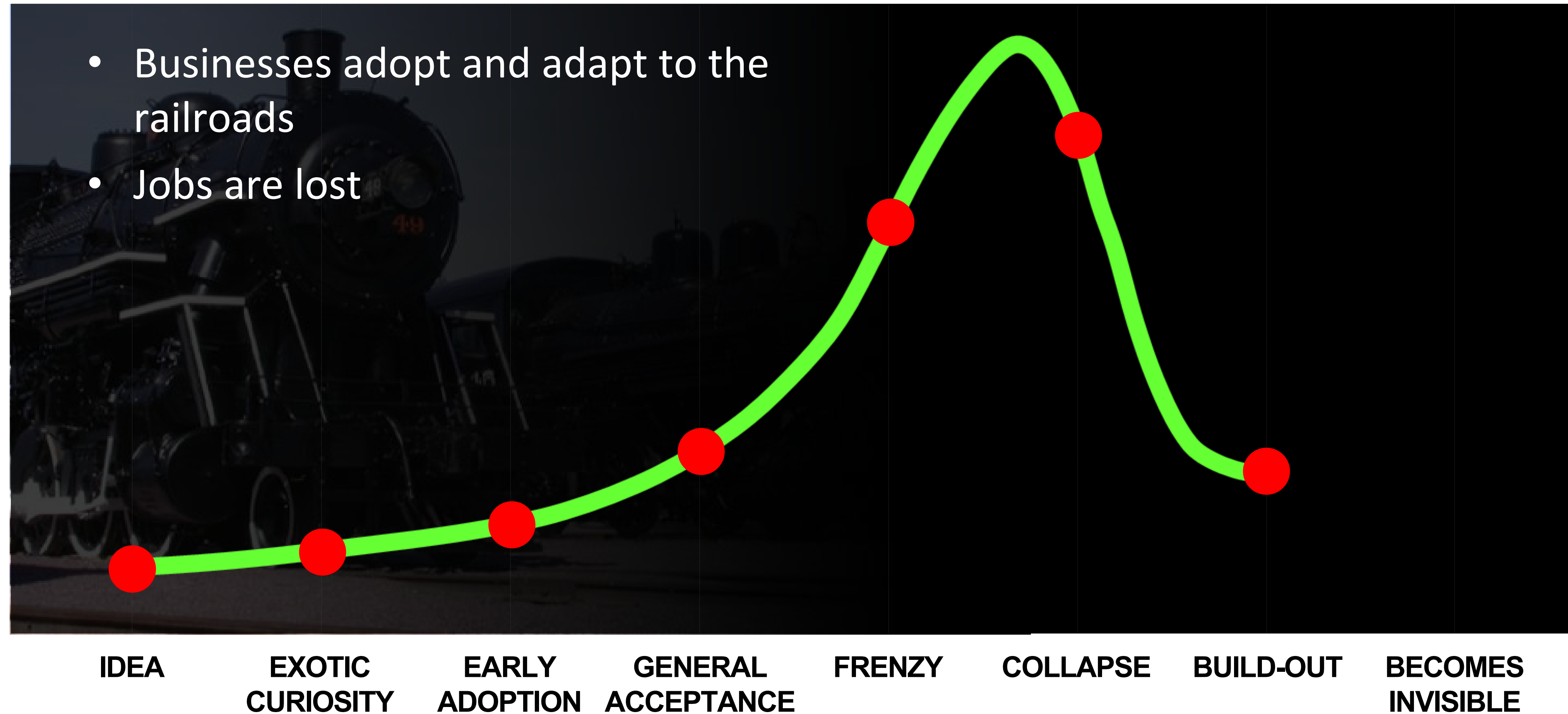
FRENZY

COLLAPSE

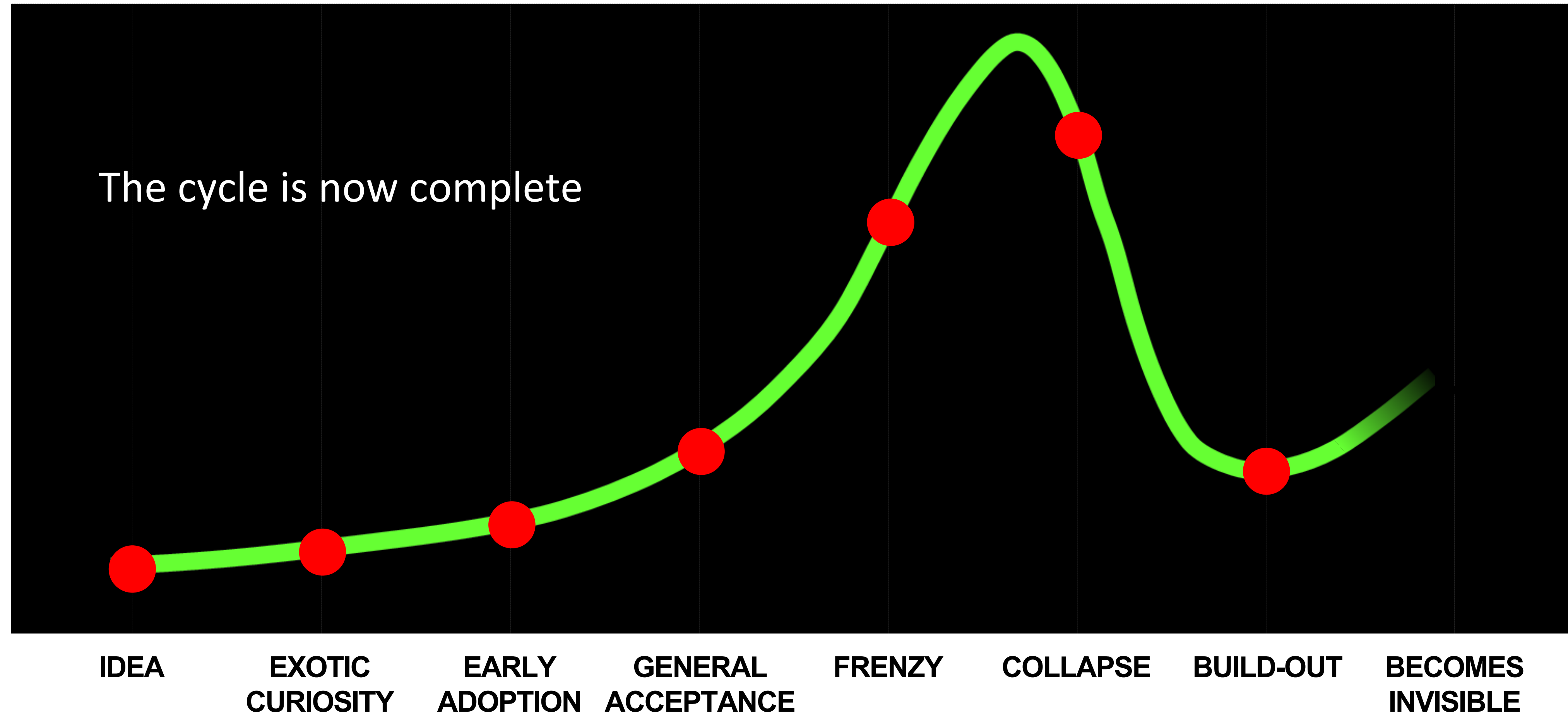
BUILD-OUT

BECOMES
INVISIBLE

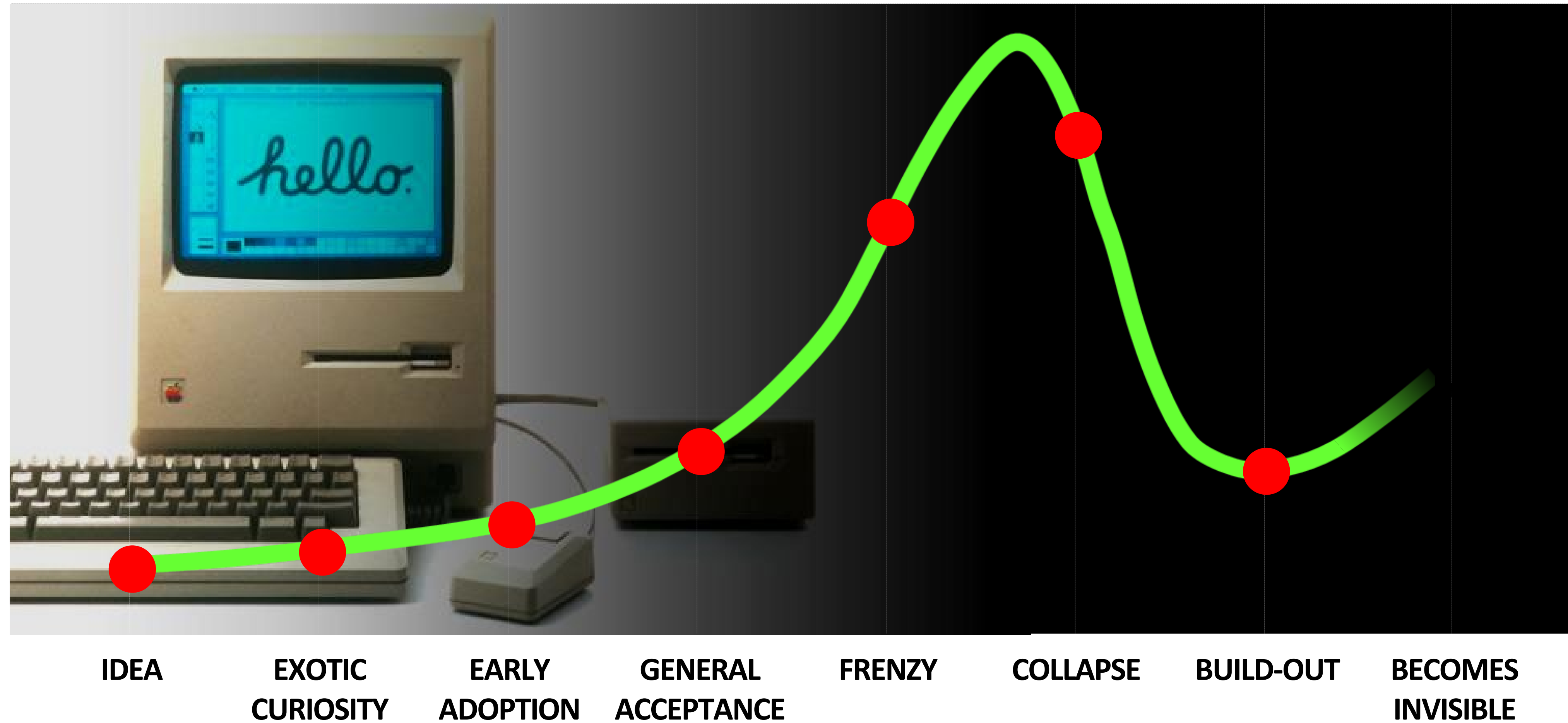
Final Build-out

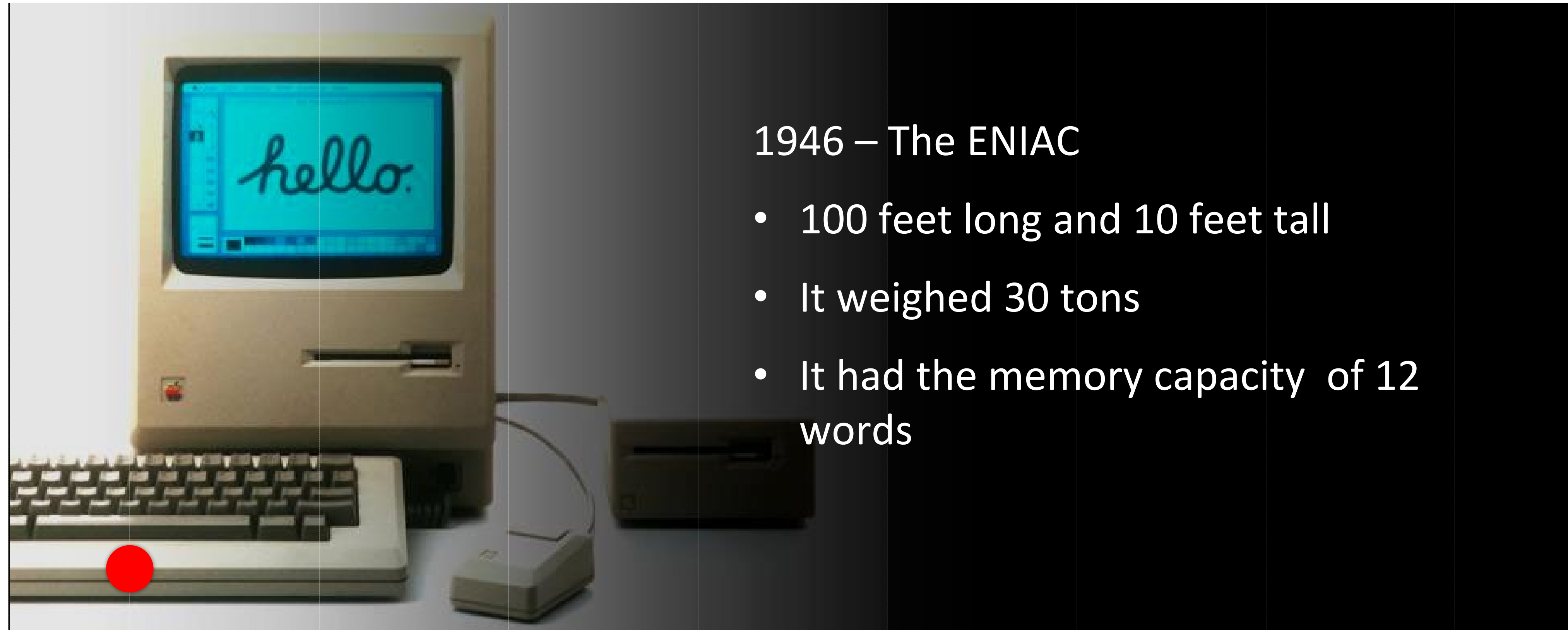


It Becomes Invisible



Information Technology





1946 – The ENIAC

- 100 feet long and 10 feet tall
- It weighed 30 tons
- It had the memory capacity of 12 words

IDEA

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BUILD-OUT

BECOMES
INVISIBLE



- 1971 – the microprocessor is invented

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BUILD-OUT

BECOMES
INVISIBLE

Early Adoption



- 1981 – Microsoft DOS

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BUILD-OUT

BECOMES
INVISIBLE

General Acceptance



- The Commodore 64

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EARLY
ADOPTION

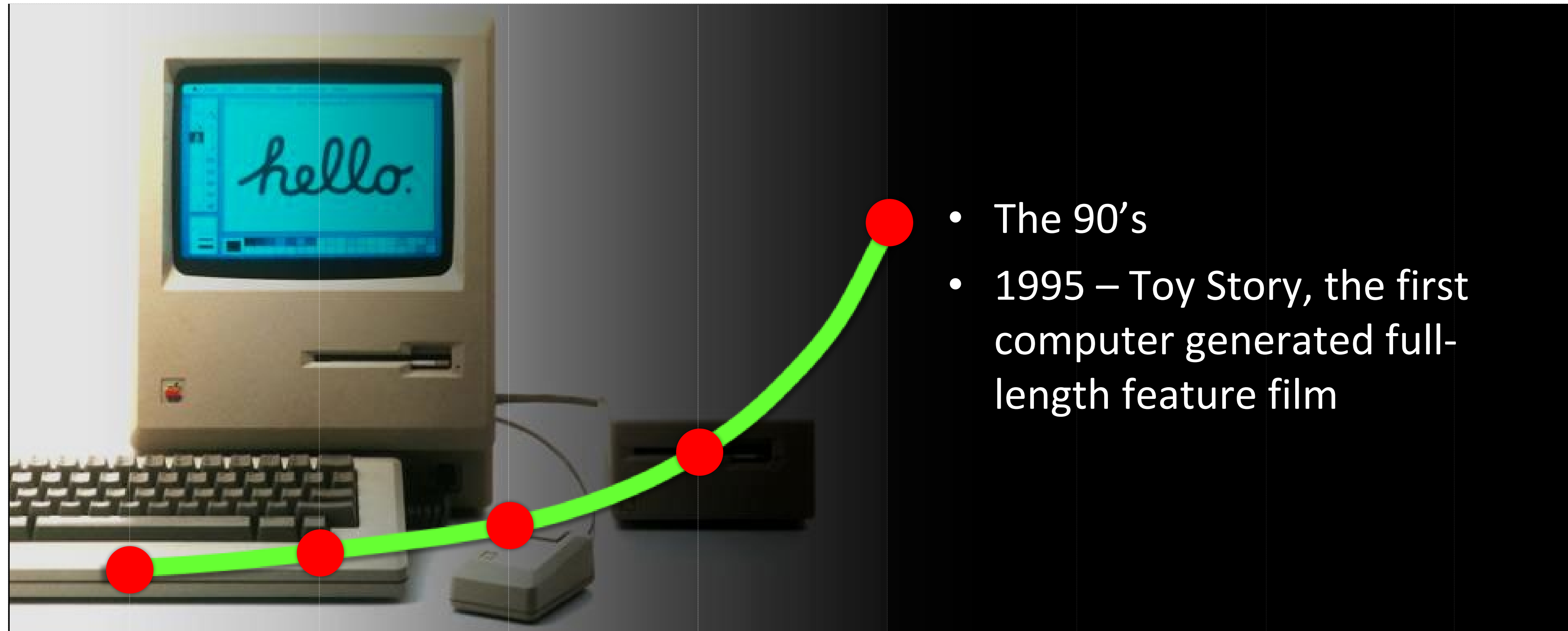
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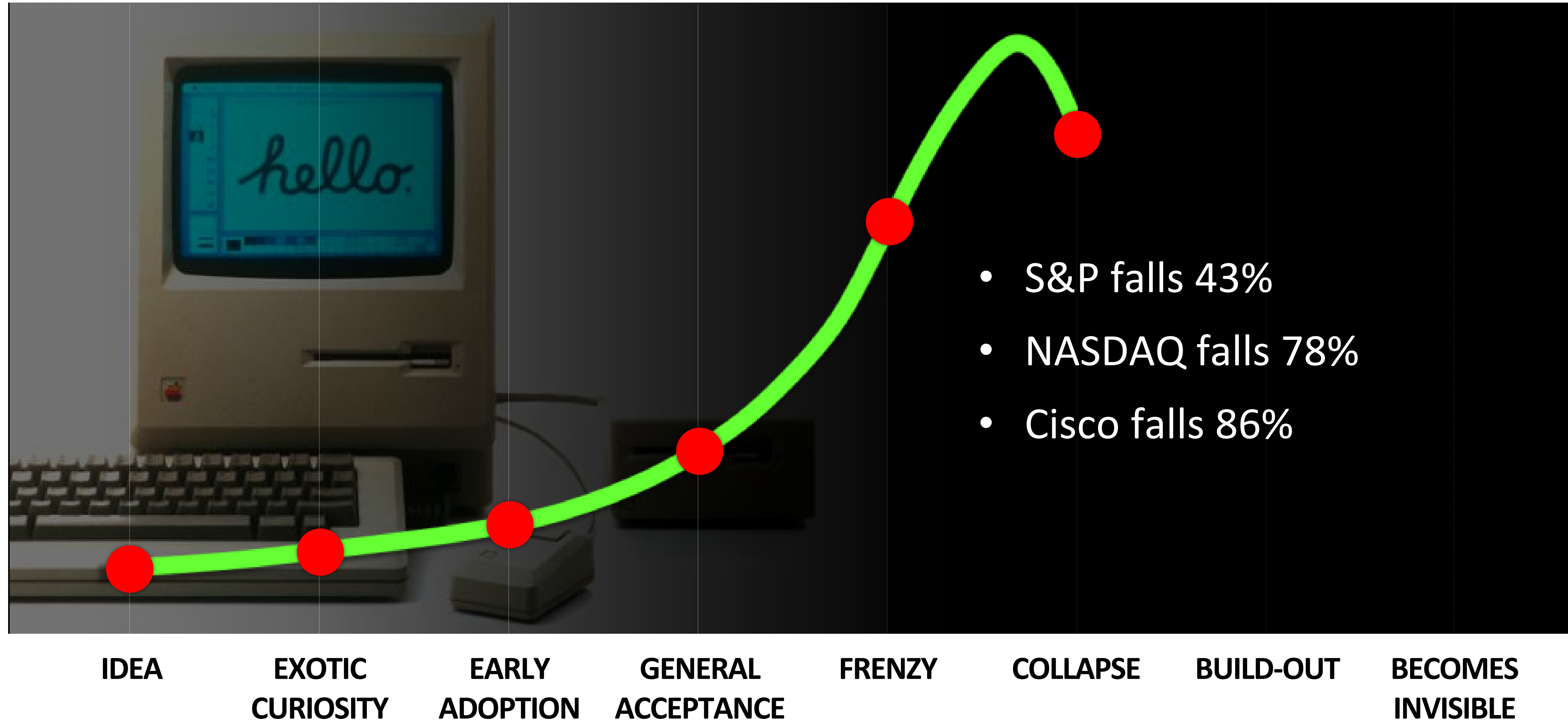
FRENZY

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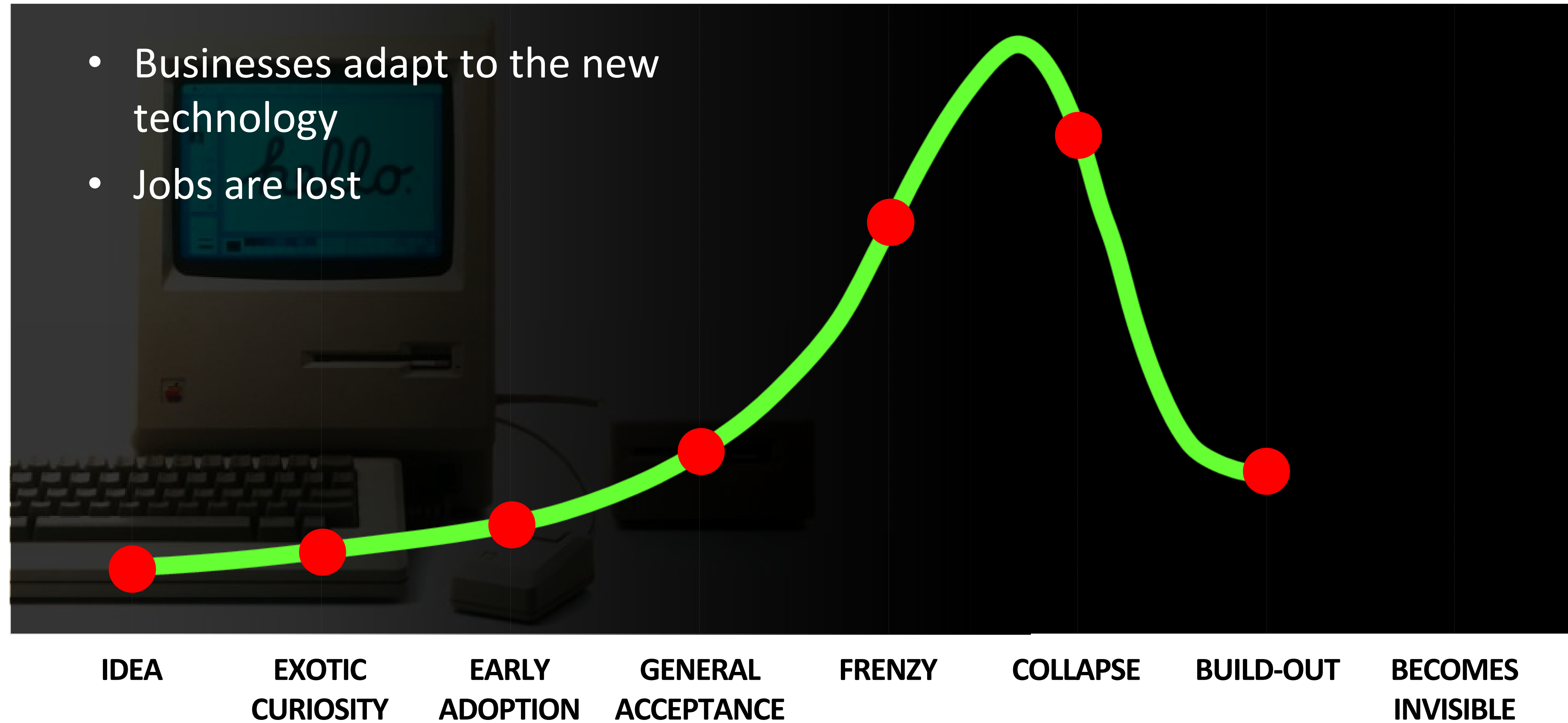
BUILD-OUT

BECOMES
INVISIBLE

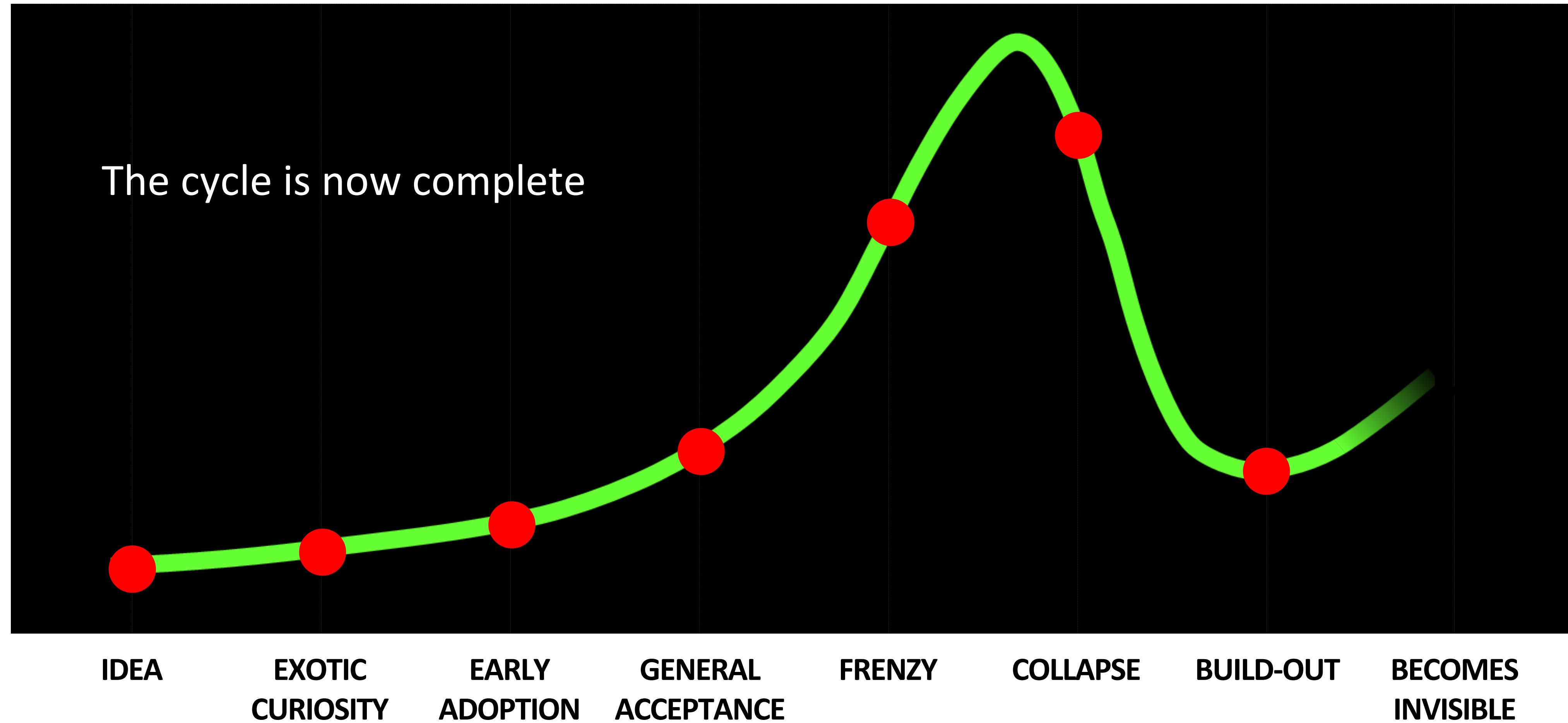
Collapse



Final Build-out



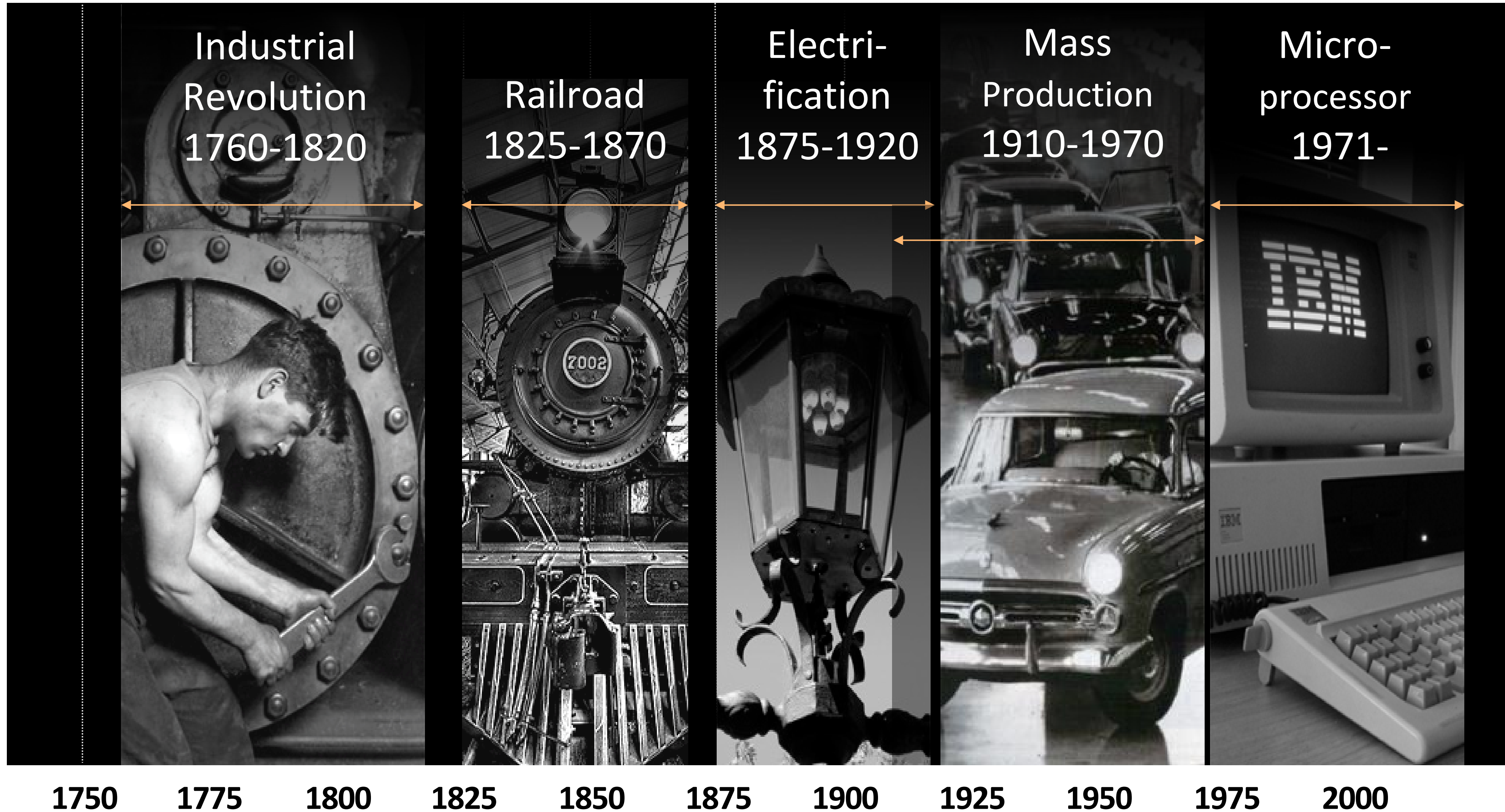
It Becomes Invisible

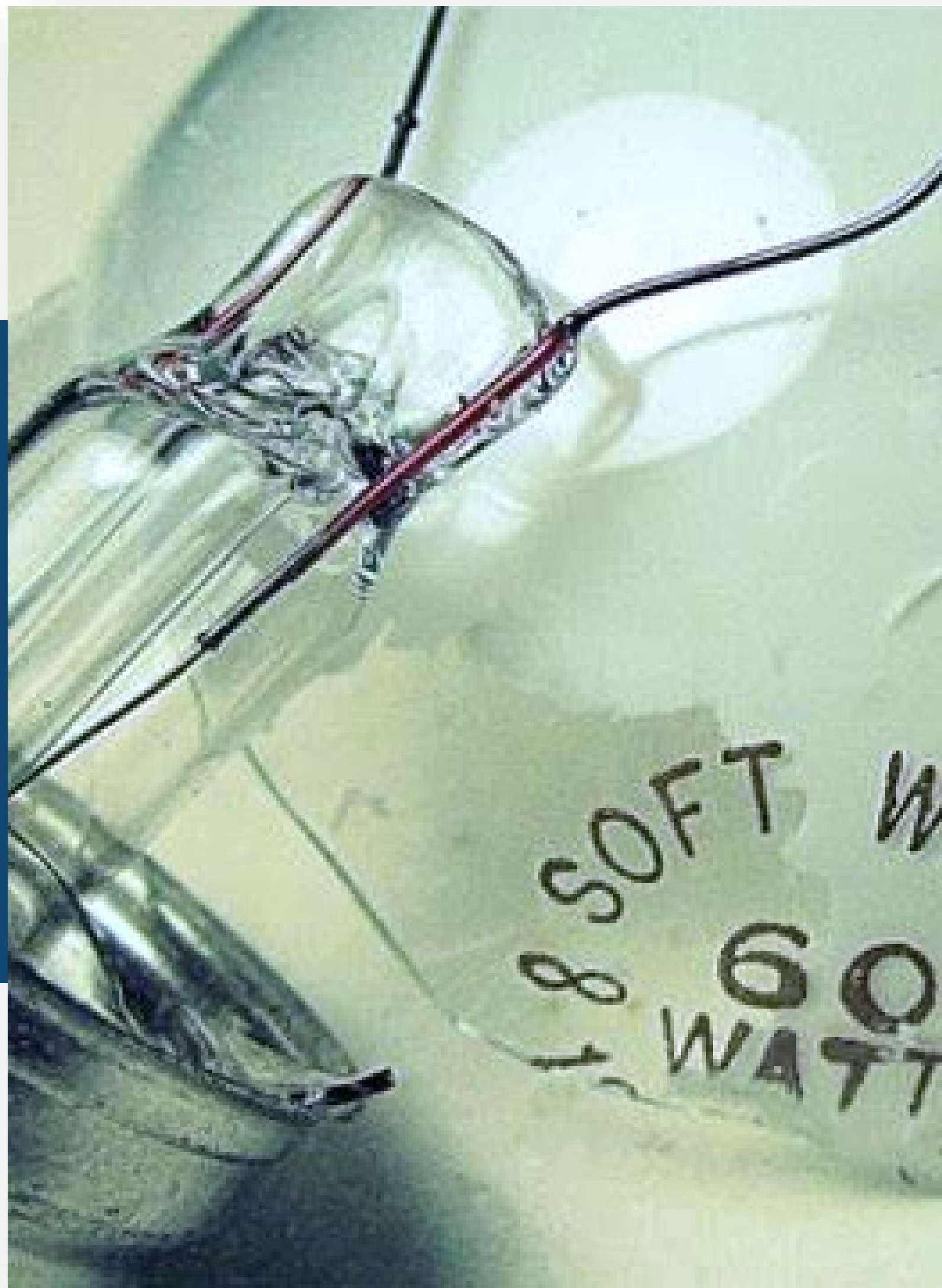


Where are we in the computer revolution?

Is technology invisible?

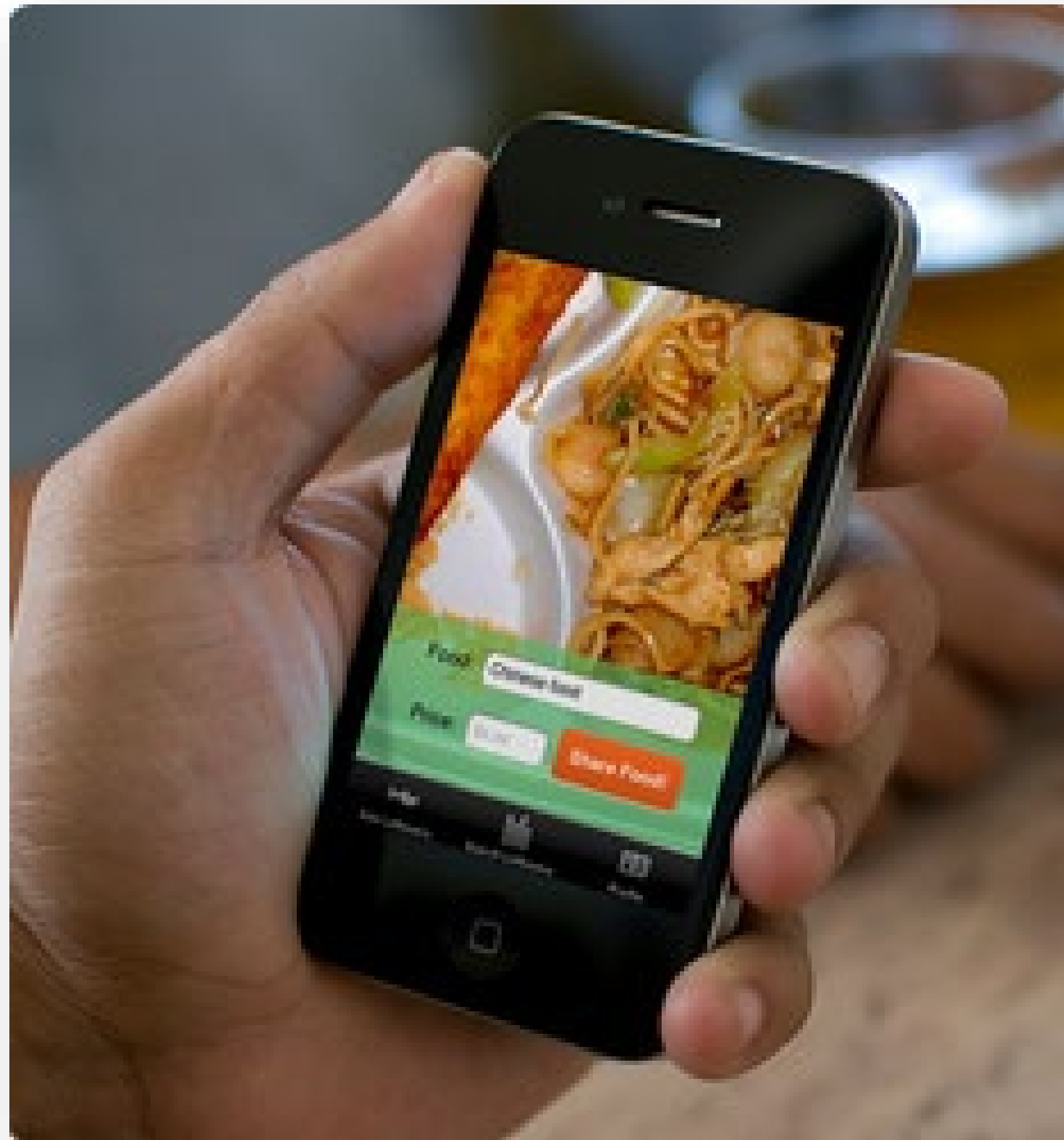
Industrial Revolution	1760 – 1820	60 Yrs.
Railroad	1825 – 1870	45 Yrs.
Electrification	1875 – 1920	45 Yrs.
Mass Production	1910 – 1970	60 Yrs.
Microprocessor	1971	50 Yrs.





**“Everything that can be
invented, has been
invented.”**

*– Dr. Charles Duell,
Director of U.S. Patent Office*



What Happens Next?

What is the next revolution



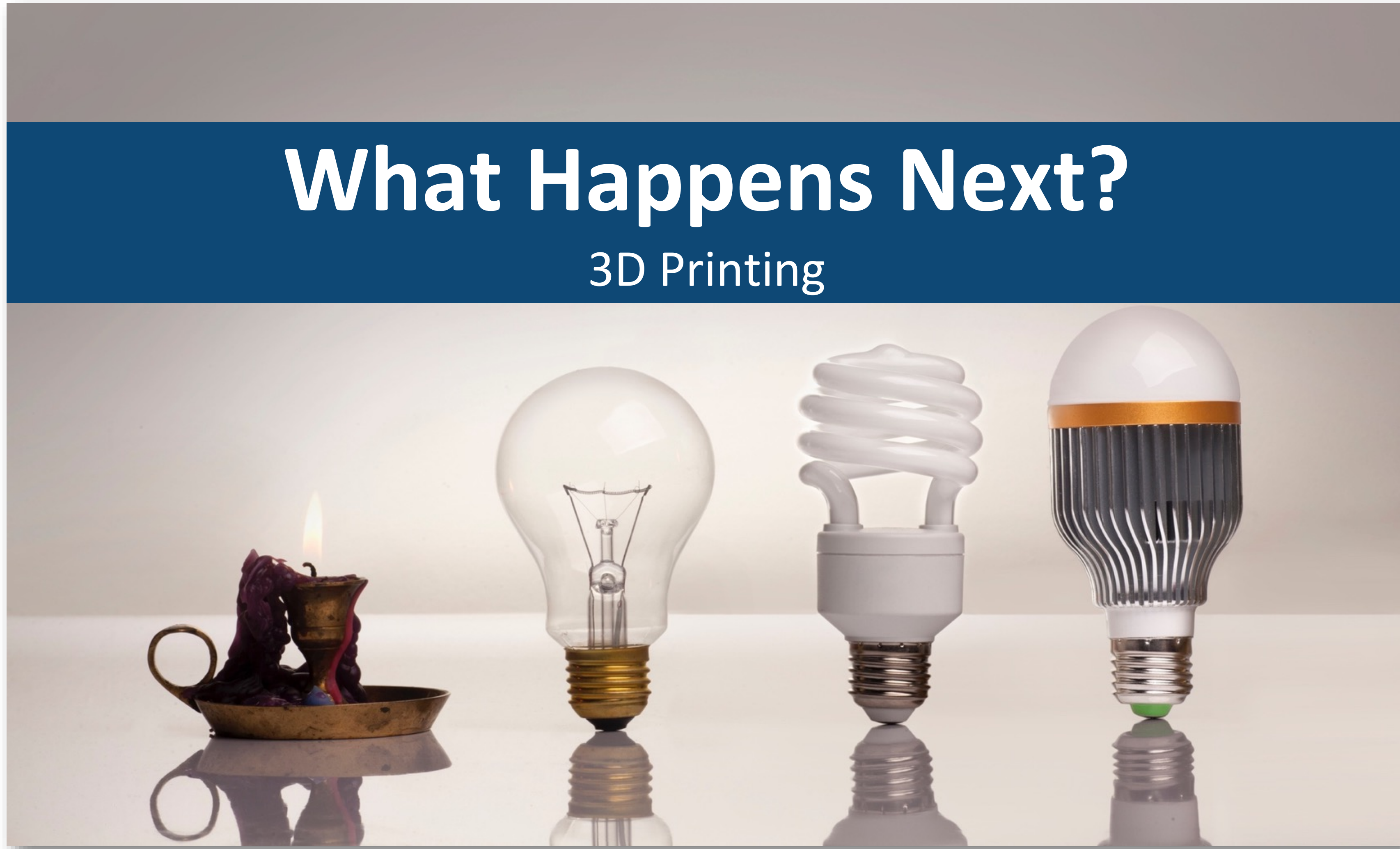
What Happens Next?

Artificial Intelligence

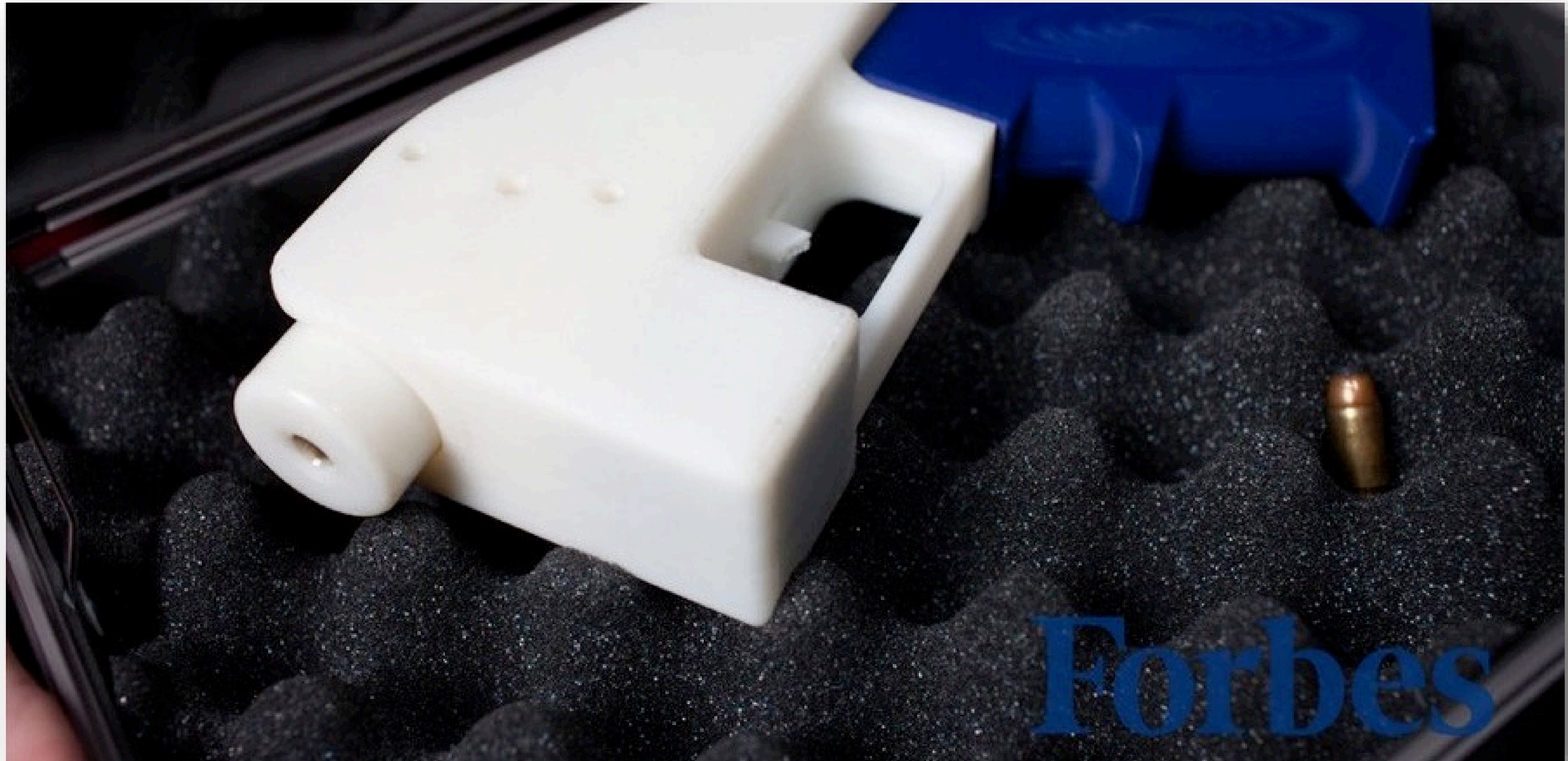


What Happens Next?

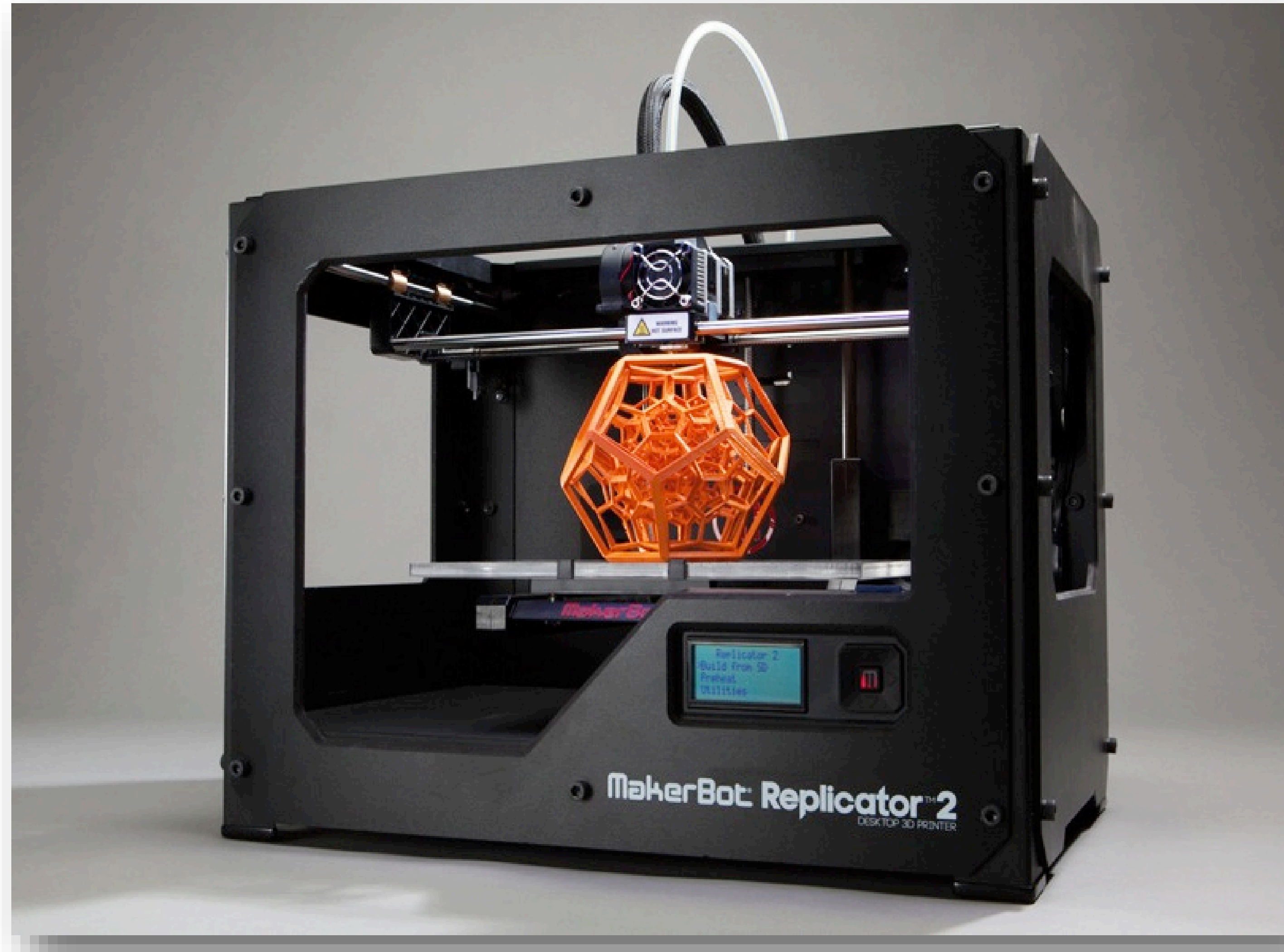
3D Printing



World's First 3D Printed Gun













SKYFALL

Directed by Sam Mendes

Estimated Value: \$4,600,000





MailOnline

The secret behind James Bond's Aston Martin DB5: How Skyfall producers used 3D PRINTED cars to spare the priceless original

- 3D printing was used to create models a third of the size of the real thing
- The replica mini-cars were used throughout the film, and blown up in a key scene

By Mark Prigg

PUBLISHED: 06:29 EST, 13 November 2012 | UPDATED: 08:51 EST, 13 November 2012

James Bond's Aston Martin DB5 was put through a series of huge explosions and stunts during the filming of Skyfall, including one scene which saw the priceless vehicle explode in flames.

However, producers have revealed the secret behind the stunts - if they lost a car, they could simply print another.

Three replica cars, a third of the size of the real thing, were created using a large scale 3D printer.

The models double for the now priceless original vehicle from the 1960s in the film's action scenes.

The models were made by British firm Propshop Modelmakers Ltd, which specialise in the production of film props, and used Voxeljet to print the cars.

'Propshop commissioned us to build three plastic models of the Aston Martin DB5,' voxeljet CEO Dr. Ingo Ederer.

“If they lost a car, they could simply print another one.”







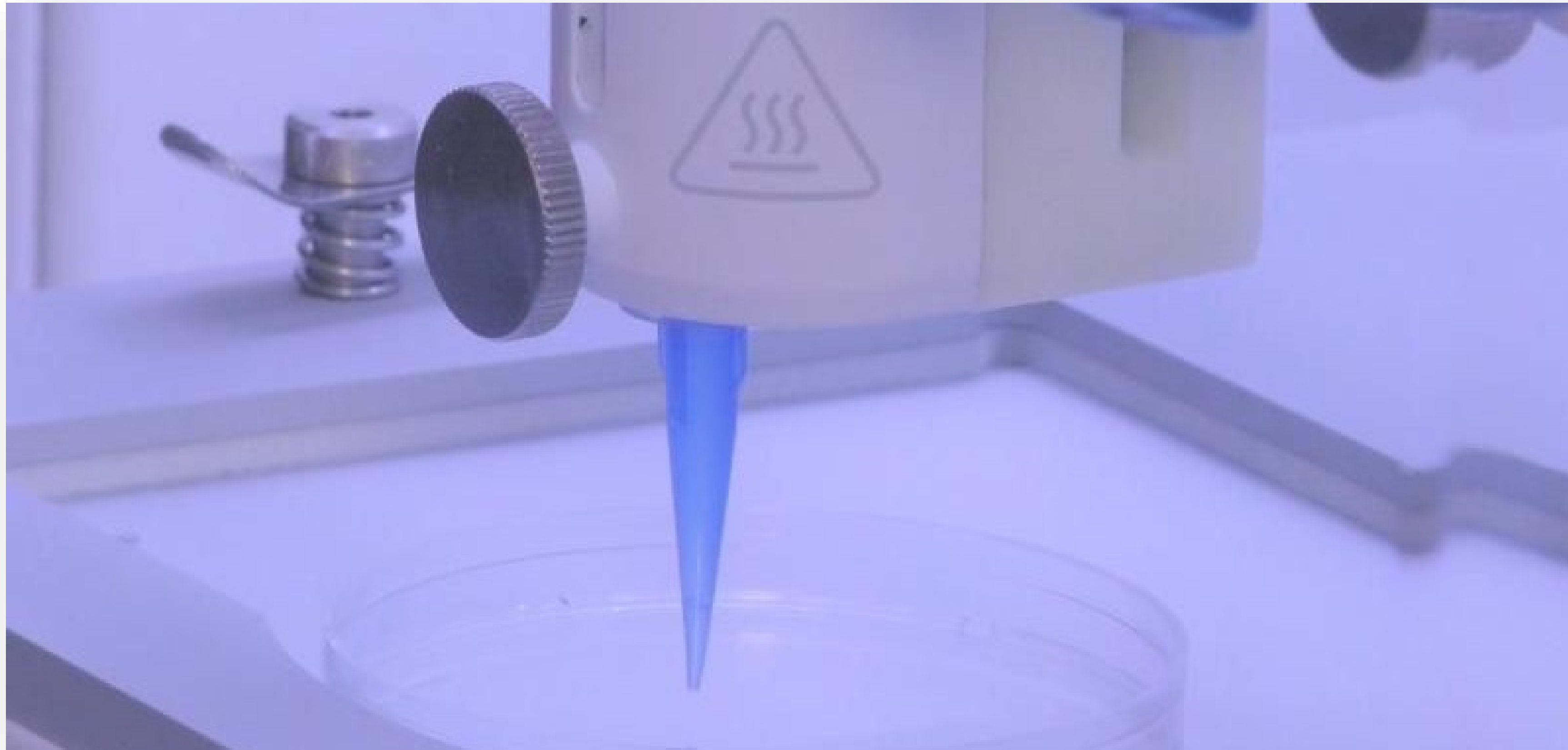
This 3D-printed prosthetic hand can be created in just over **42 hours.**



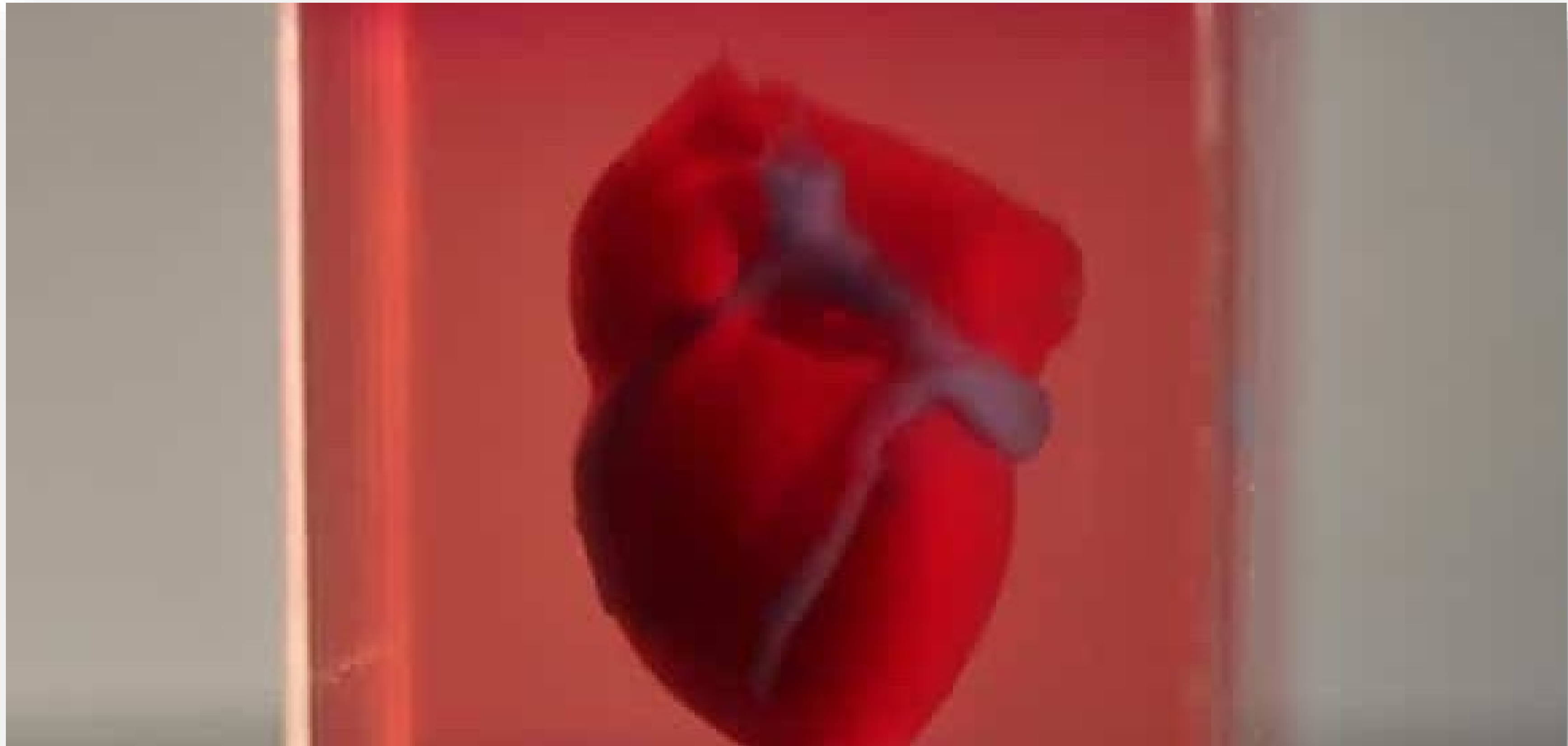
Scientist 3-D Print Skin that Develops Working Blood



Vessels - *November 18, 2019*



Researchers Just 3D Printed The First-Ever Complete Heart Using Human Tissue - *April 16, 2019*



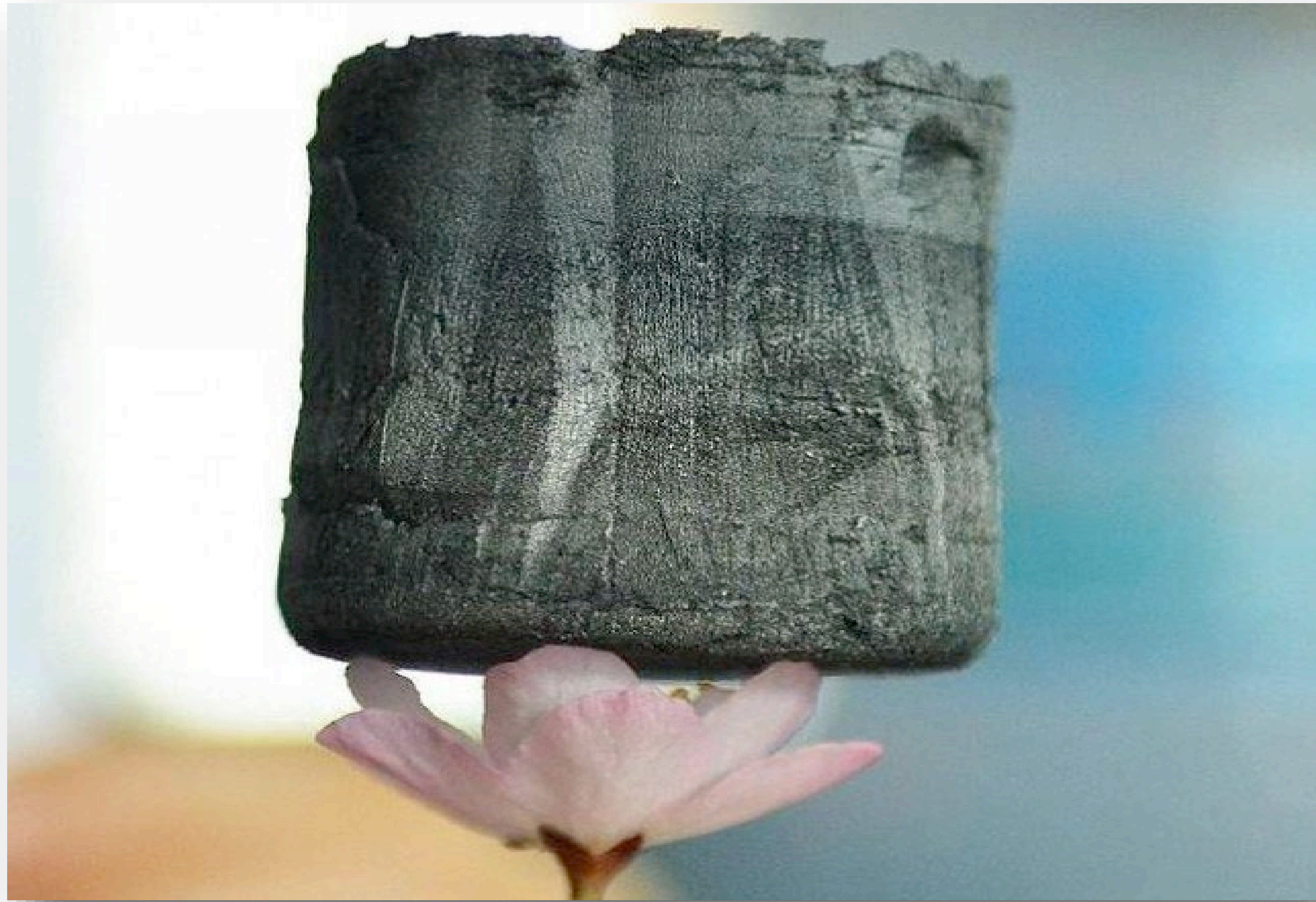
What Happens Next?

Graphene

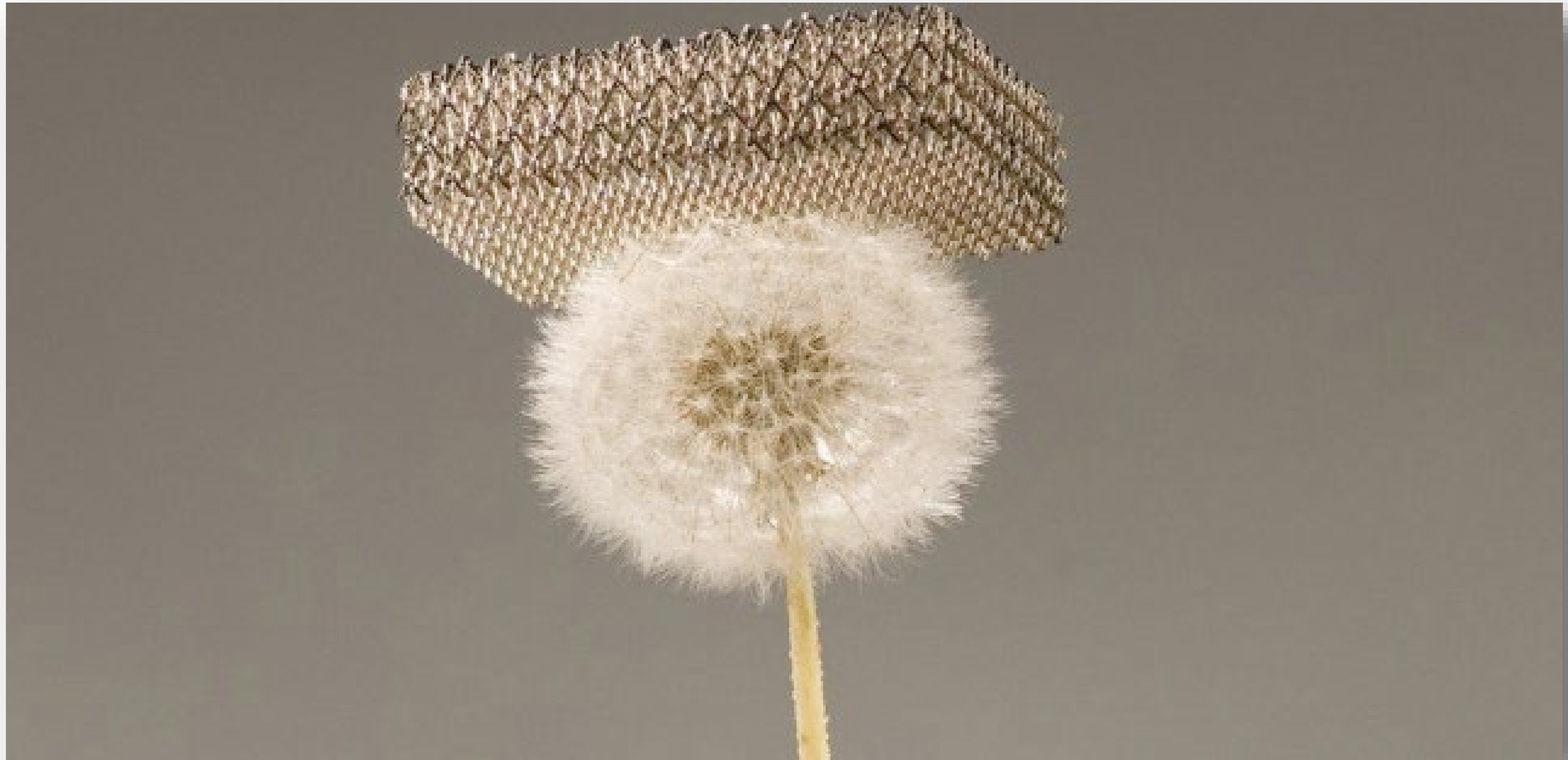


2 grams of graphene aerogel





Graphene latticework

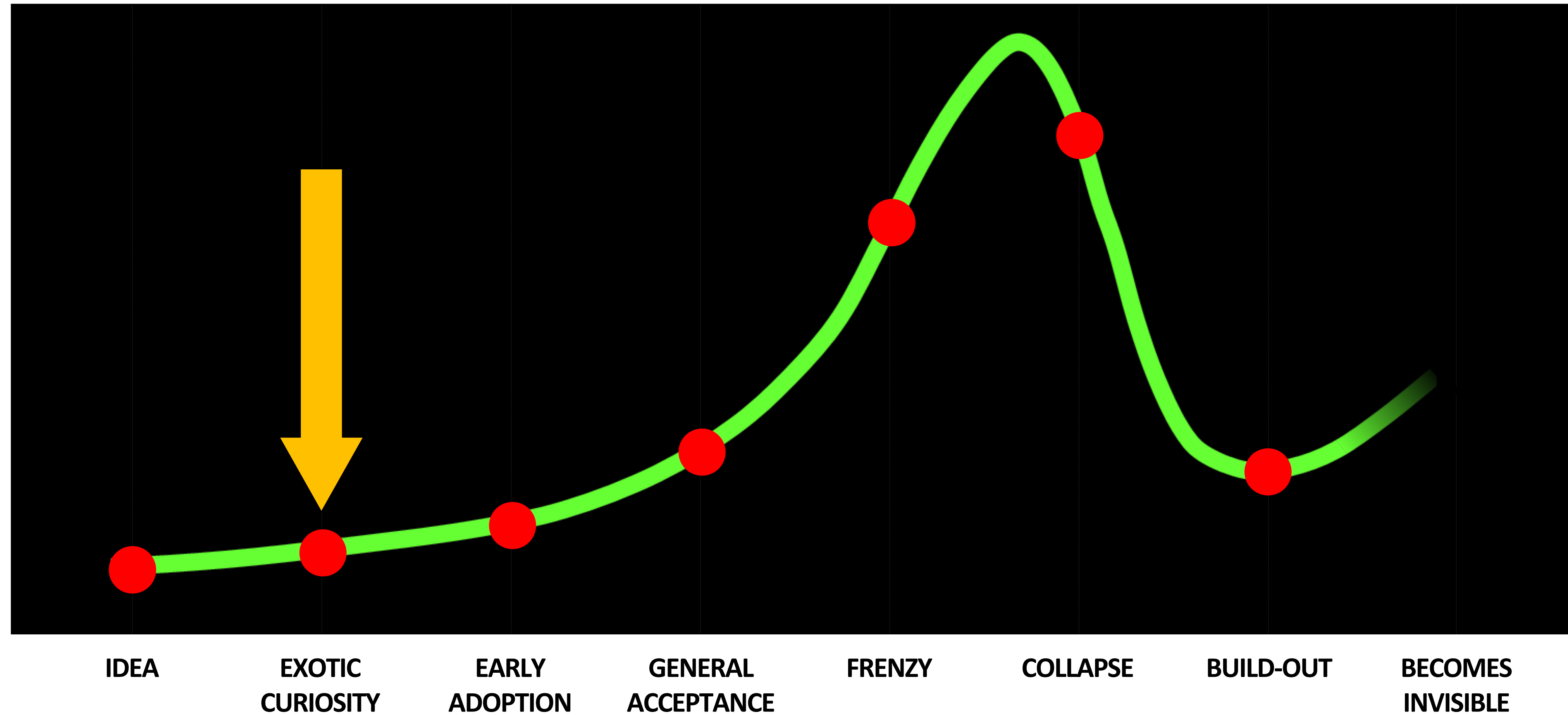




Graphene battery recharges in 4 minutes



Graphene – where are we?

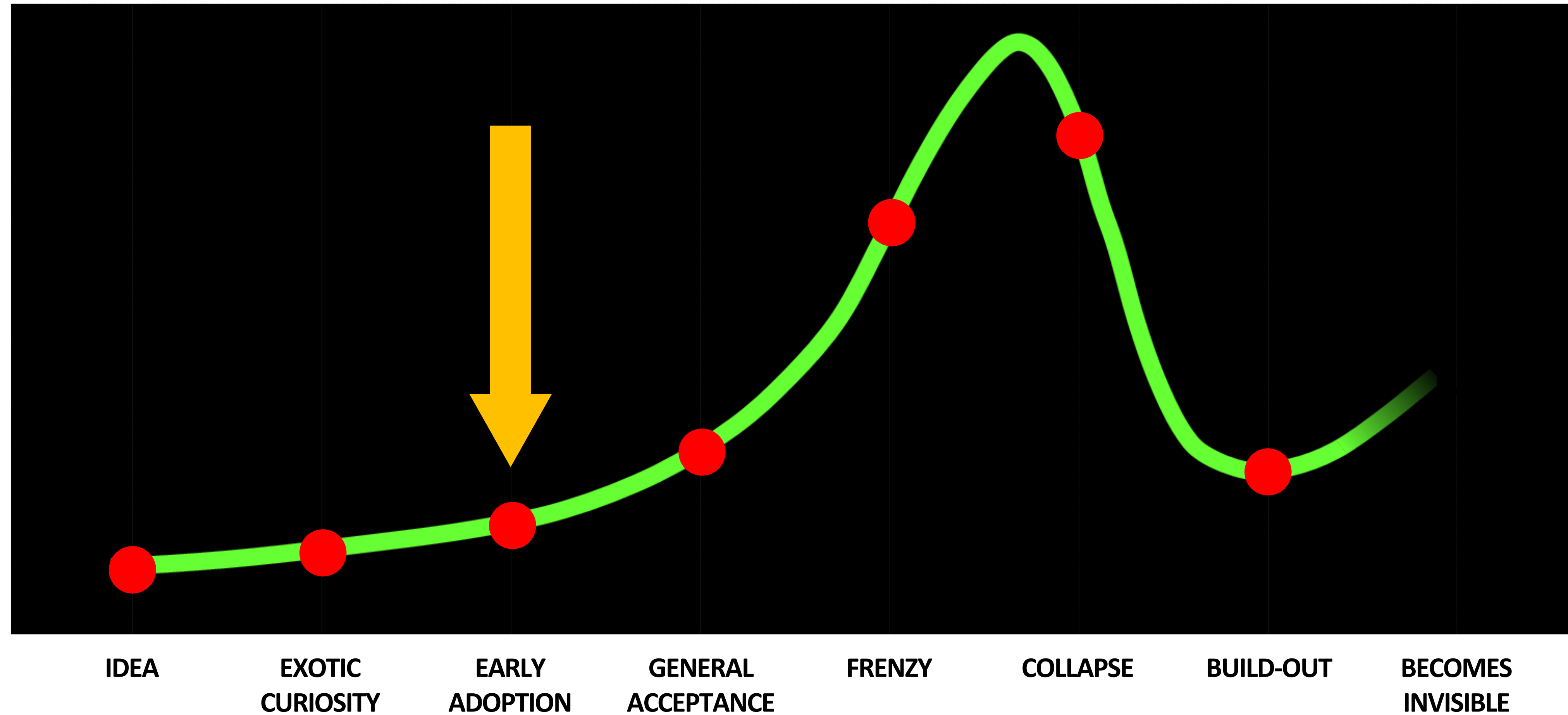


What Happens Next?

Biotech



Biotech – where are we?



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WHN, Virginial Bankers**

TALKING POINTS

BY MARK ZINDER

Here are this week's talking points: the right thing to say when trying to make a point.

Roughly 60% of NBA players and 78% of the NFL file for bankruptcy within 5 years of retiring.

-Money.cnn.com

Today, an average worker can compete in 1 hour the same amount of work that it took them 2 hours to finish in 1977.

-Department of Labor

“Markets walk up stairs but jump out windows.”

-Anonymous

Between 1971 and 2017, the U.S. Fed Funds rate has averaged 5.8%.

-Thebalance.com

“The best way to rob a bank is to own one.”

-William Crawford

What Happens Next?





















MARK ZINDER
— AND —
A S S O C I A T E S

Thank You