

d-wise

Empowering innovation for a healthier world



STRATEGY



DATA



CLOUD



PRIVACY



ANALYTICS

Rapid Prototyping to Test Ideas and Explore Technologies

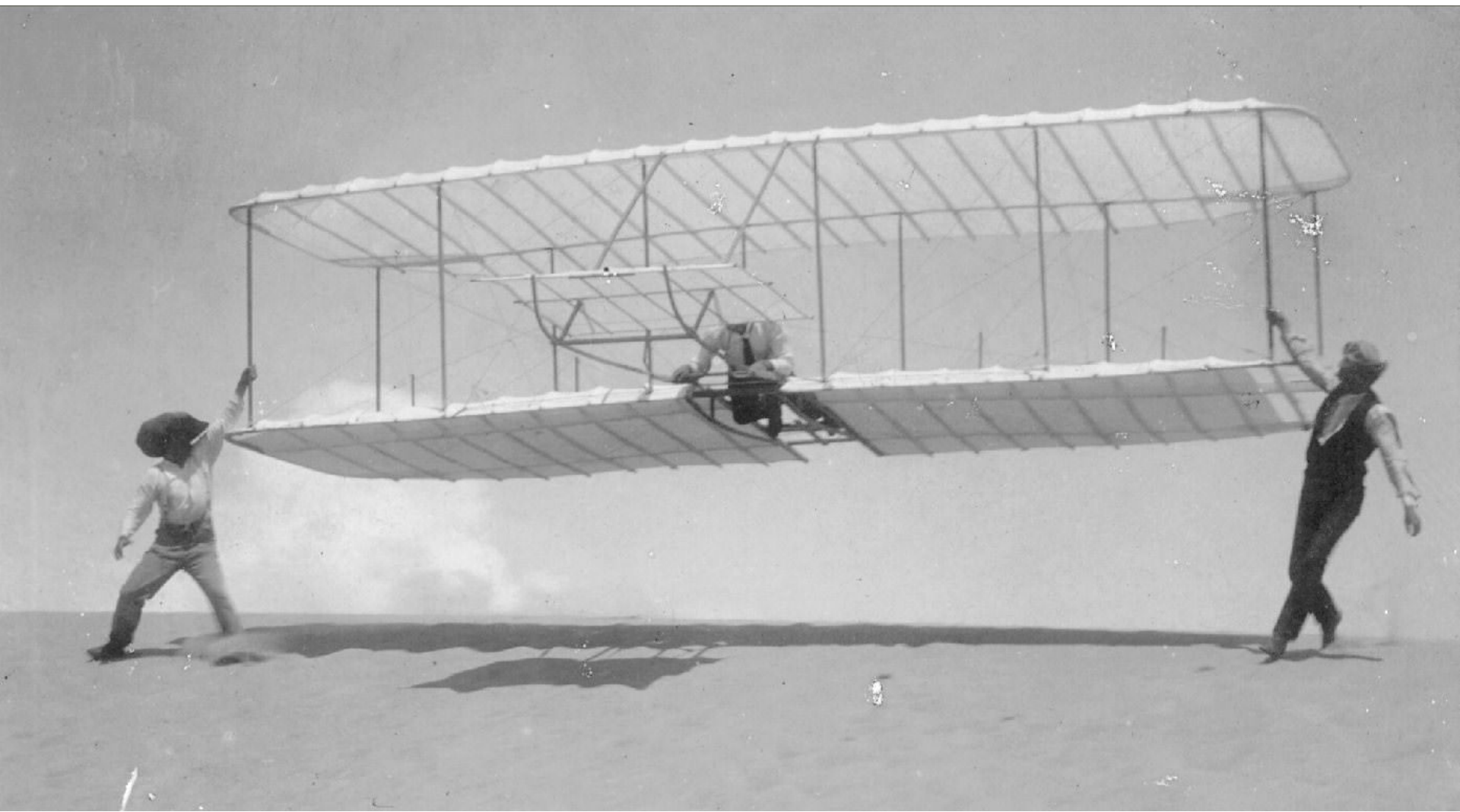
*Scott Bahlavooni
and
Ian Fleming*

Prototype

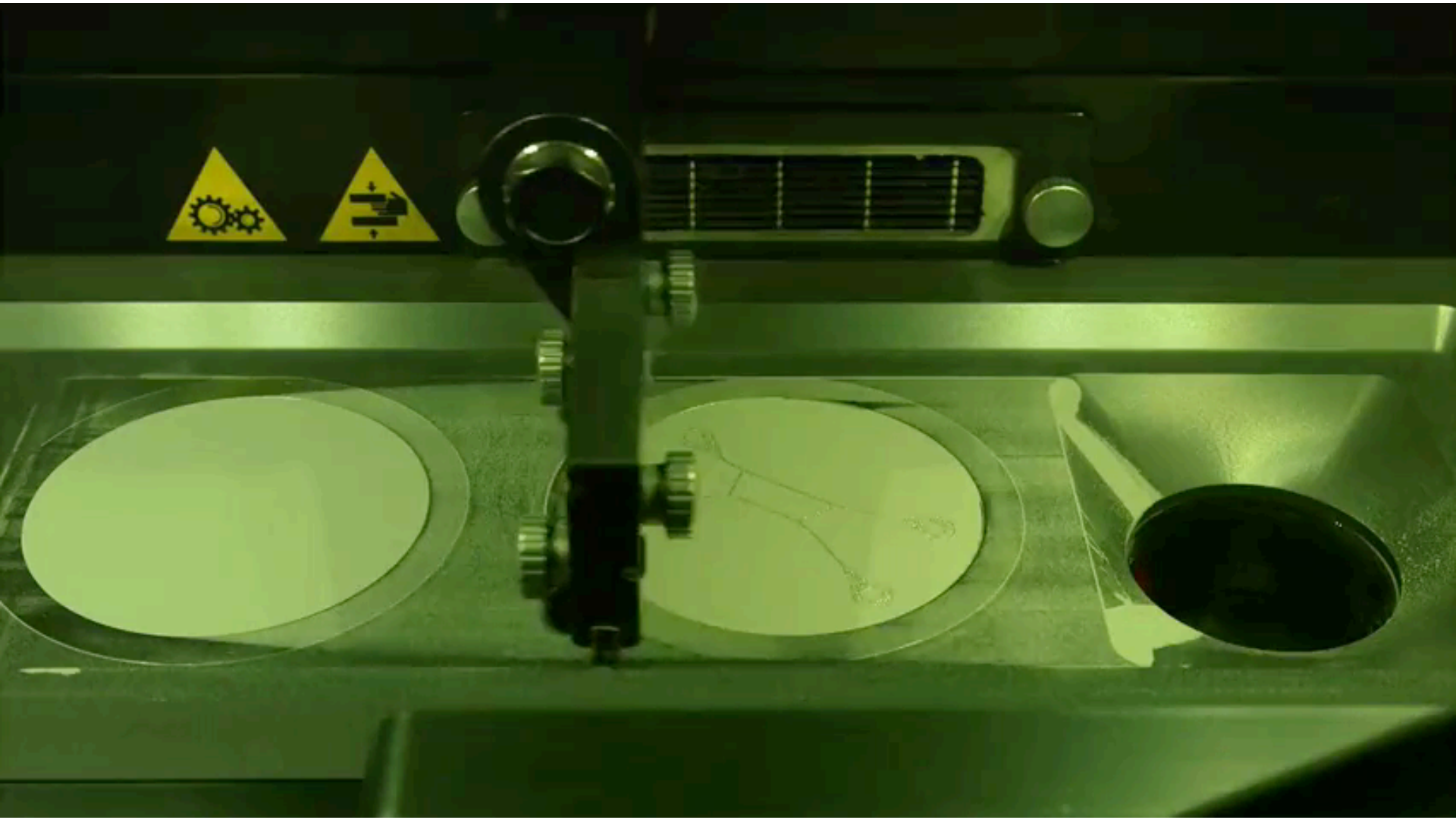
- “an early sample, model, or release of a product built to test a concept or process or to act as a thing to be replicated or learned from”
- <https://en.wikipedia.org/wiki/Prototype>

■ Main Themes

- Fast
- Learning
- Testing
- Results focused







GE Additive Manufacturing

- Faster - 24 hours to fabricate a testable part
 - Previously took more than a year
- Lighter - weight reduction of 25%
- Simpler - number of parts reduced from 18 to 1
- New features
 - Integrated cooling pathways
 - 5x the durability of the old part

Why is this important?

- We are stagnant
 - I mean...we're here, aren't we?
- Our toolsets and processes haven't really changed in 20 years
- Technology has advanced considerably
 - It is only advancing more quickly now
- Prototyping is a fundamental component of innovation and creativity

What's in our way?

- Mindsets

- Fear of failure
- Change averse
- “Pre-specification”
- “Permission”
- Lack of curiosity

- Skillsets

- Maslow's Hammer
- “I don't know how”

A little bit of fun

docker.d-wise.com:5000/phuseSDE

From nothing to done in 30 minutes



Moving Pharma Out of the Stone Age

(R)EVOLUTION

Why we need a (r)evolution?



What if we prototyped...

...environments and toolsets

...standards

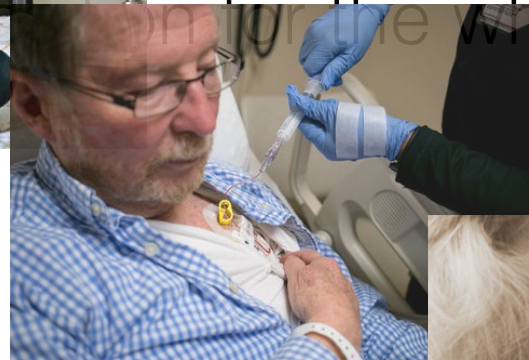


■ Same old validation for the wheel...

■ Increased efficiency

■ Improved quality

■ Reduced Costs



■ For the love of nerds and geeks

Who will lead the (r)evolution?

■ Industry and/or Regulatory Agencies, or someone else?

■ Innovators?

■ 6 months from now...

Have you explored the technologies or methodologies from the PhUSE SDE?

☐ Yes ☐ No



How will we (r)evolve?

- Collaboration
- Failure **IS** a healthy option
- Remind ourselves why...

