AI for Good Workshop

March 2019

Session 2

Artificial Intelligence for everyone

Strategy for Success

How to succeed in AI journey?

https://sites.google.com/view/AIforEveryone

Envisioning to deploy Deep Learning?
What is your strategy to lead the AI wave ?

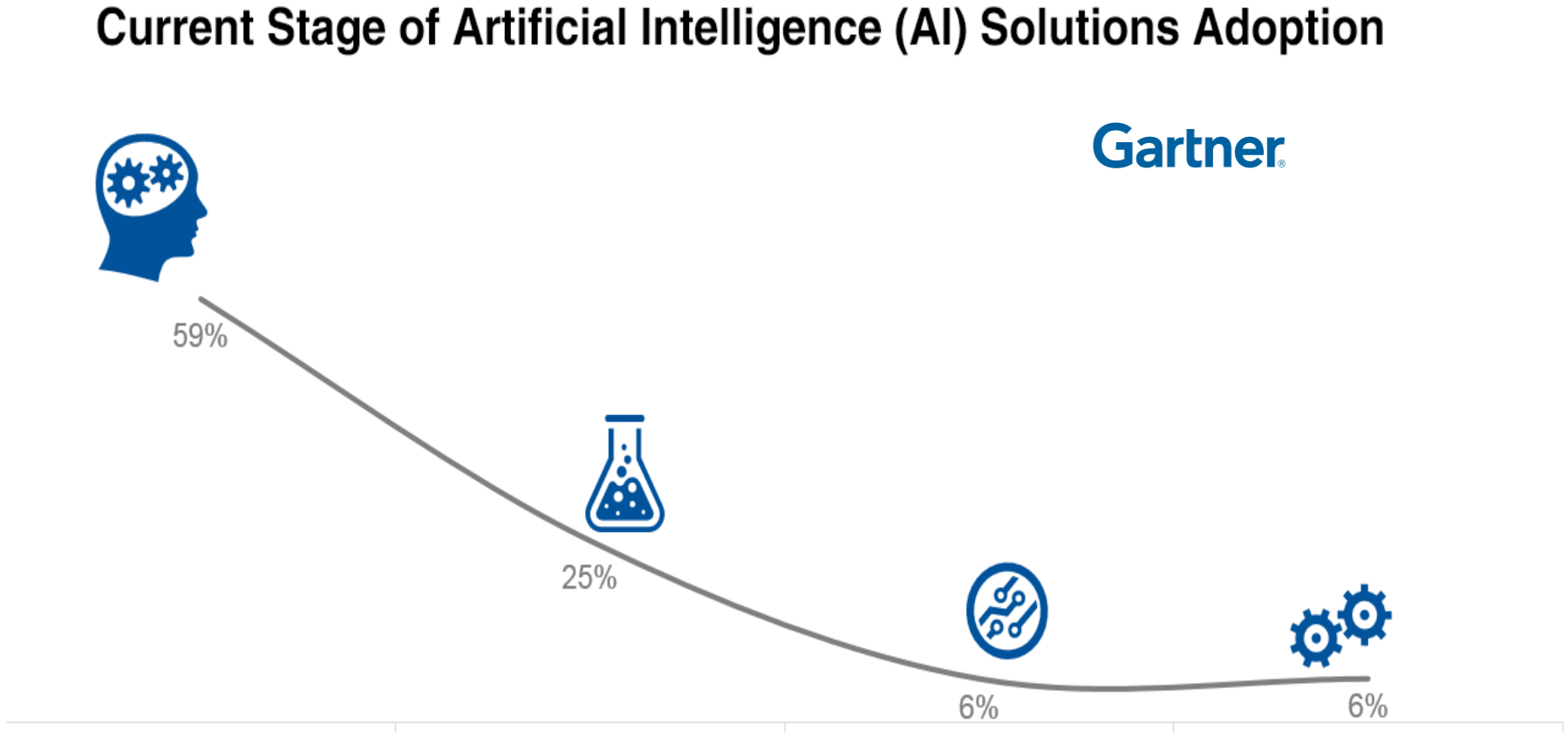


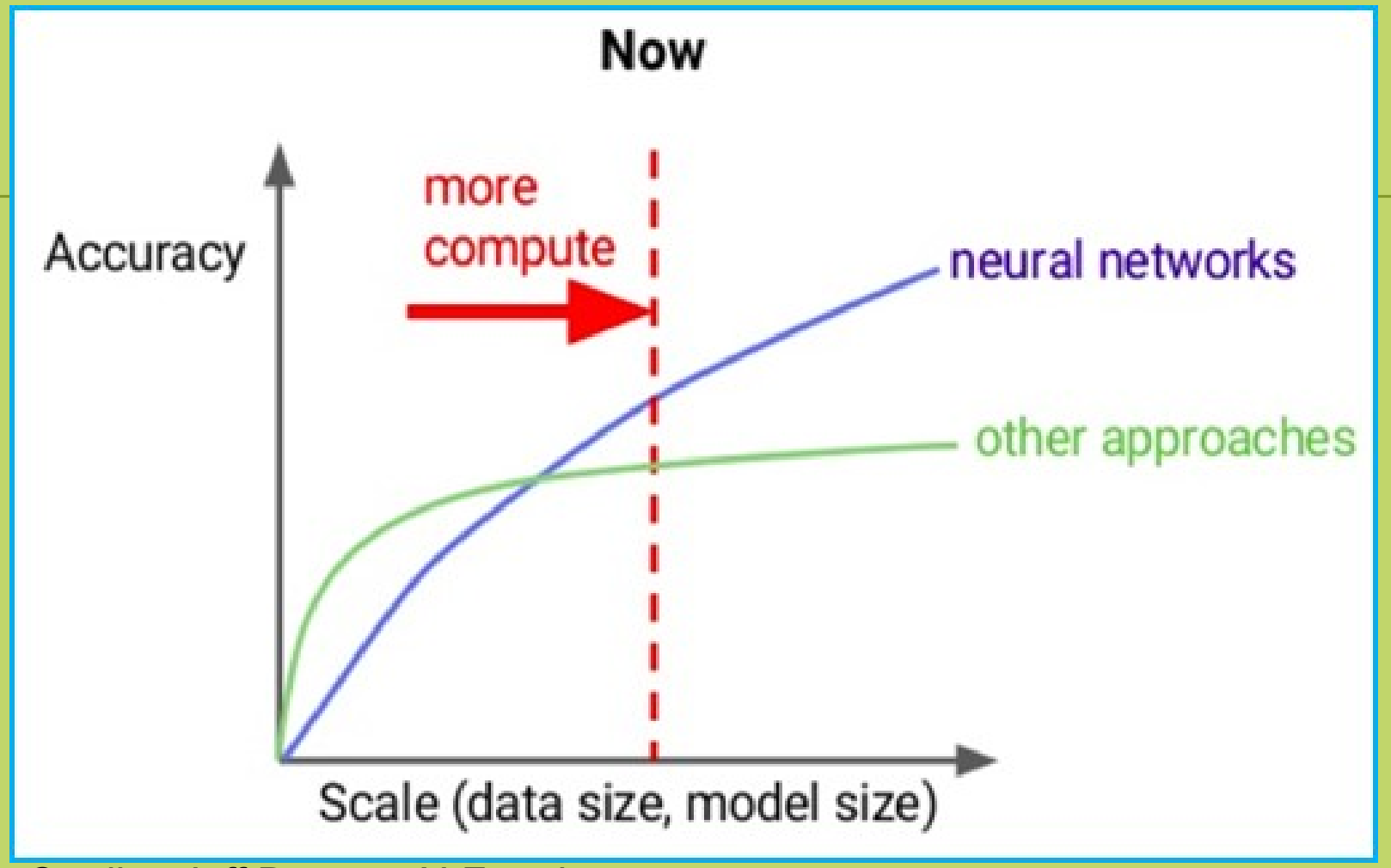
Image credits: Gartner

What is you AI strategy?

How to succeed in Applied AI ?

- Do you have a Strategy to jump start your AI journey?
  - friendly framework ?
  - instant setup?
- Do you have a Strategy to develop successful AI Products?
  - deep distributed training?
  - production grade inference?

How to succeed in AI?



Credits: Jeff Dean at AI Frontiers:
Trends and Developments in Deep Learning Research, Google Brain

How to develop successful AI products ?

A friendly library + Cloud Compute + Zero setup + Free/ Pay per second = Successful AI products

+

TensorFlow 2.0

+

Colab

Acknowledgments & Credits are mentioned to inspirational resources presented in the end of Slide. For more like this, https://sites.google.com/view/AIforEveryone

Need the fastest path to success in AI ?

Experimenting with Deep Learning

Keras

- ☑ Prioritize developer experience: API designed for human beings. Follows best practices !
- ☑ Rapidly prototype: An API focus on enabling fast experimentation
- ☑ Get State of art results in Deep Learning: Winners at Kaggle competitions often use this API
- ☑ Easily turn idea into products: Deploy on Google Cloud, AWS, Azure, iOS, Android, browser Raspberry
- ☑ Avoid lock you into one ecosystem: Keras development is backed by Google, AWS, Microsoft, Nvidia

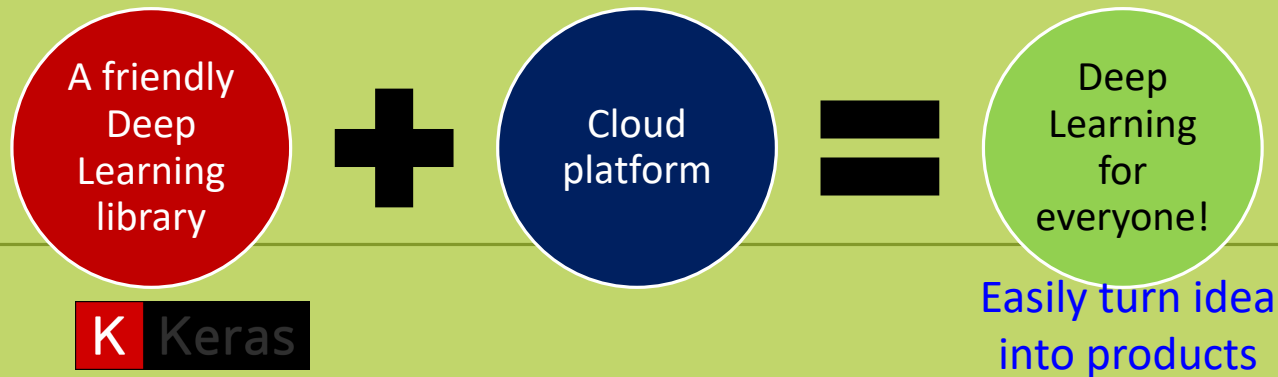
http://keras.io

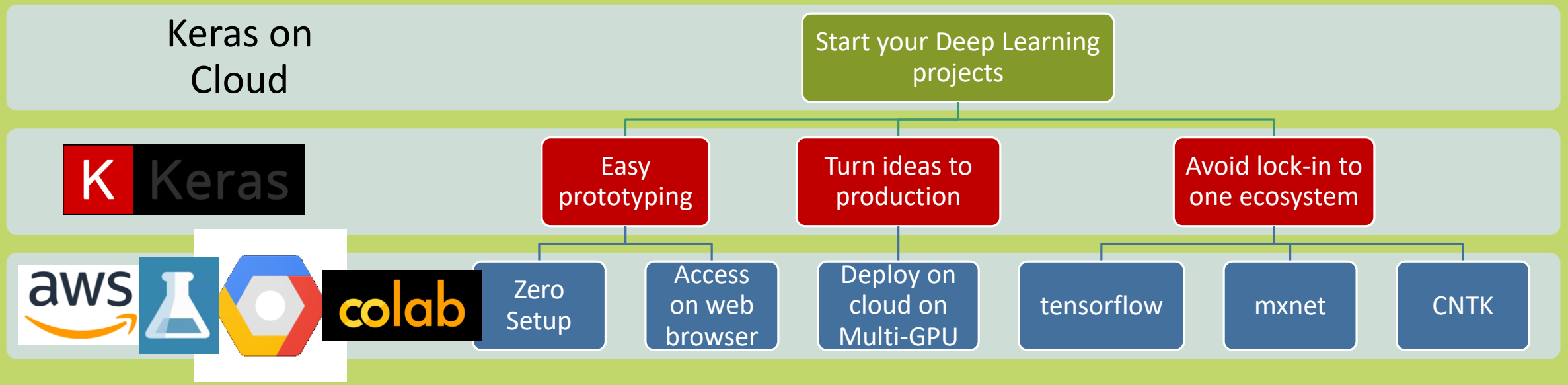
"Making deep learning accessible to everyone"

Deep Learning with Python
by François Chollet
ISBN 9781617294433

Need a Scaleable AI Product Strategy ?

Keras on Cloud





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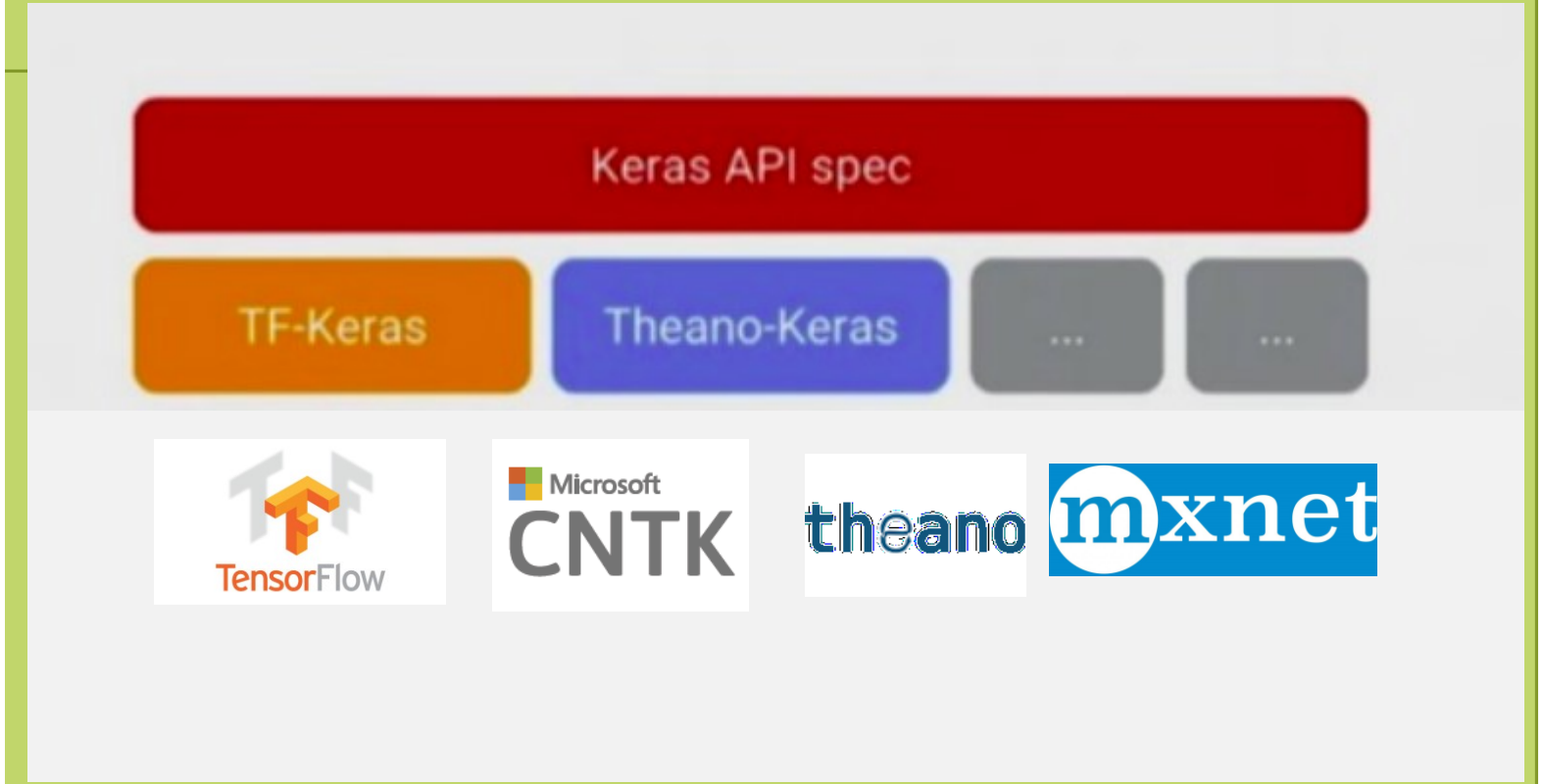
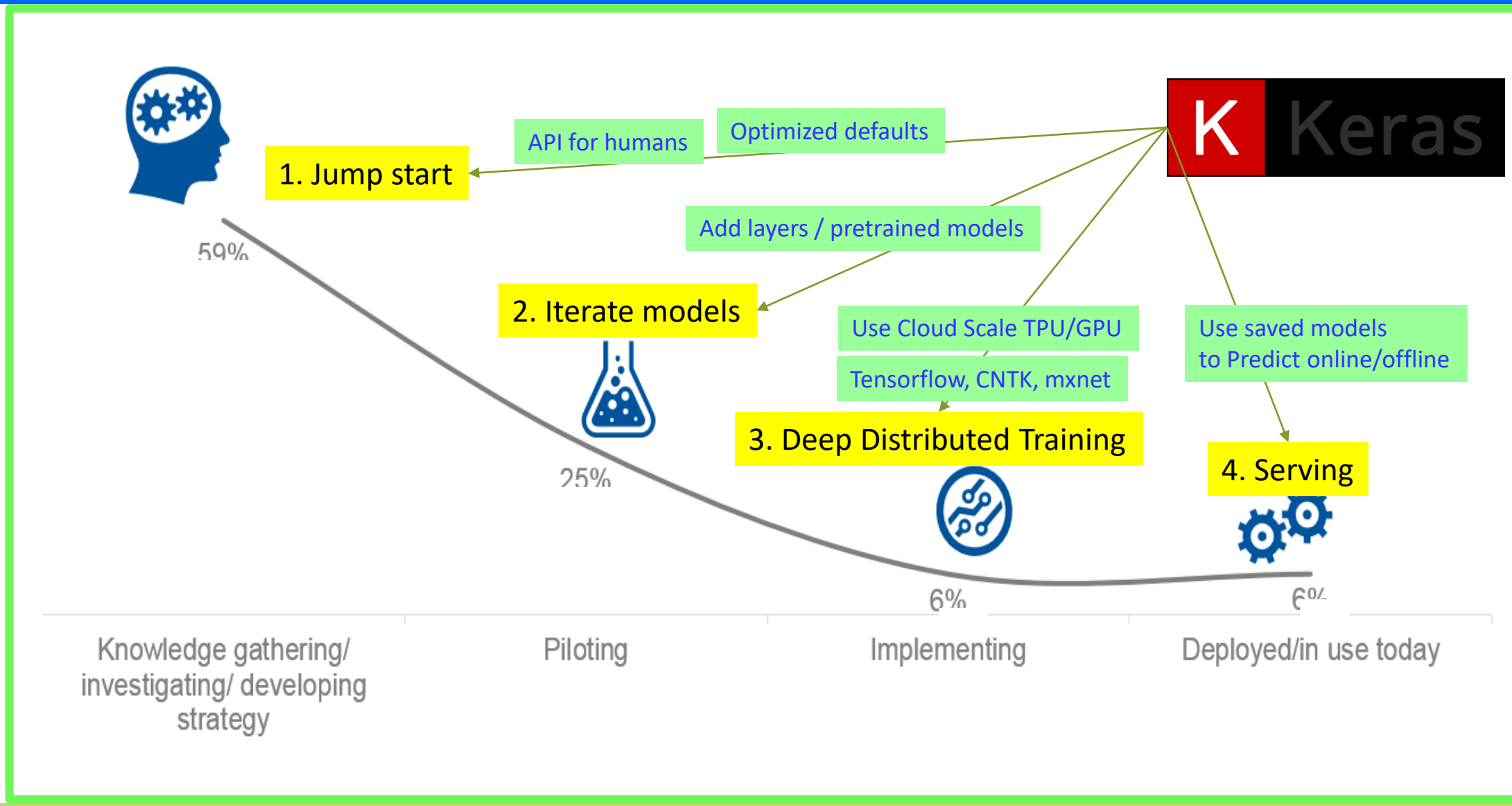
Avoid lock-in into one ecosystem

- ☑ **Avoid lock-in into one ecosystem**
  - ☑ **Keras supports multiple backend engines**
    - ✓ The TensorFlow backend (from Google)
    - ✓ The CNTK backend (from Microsoft)
    - ✓ The Theano backend
    - ✓ MXNet (from Amazon)



Summary: Success Strategy for AI journey

Keras Deep Learning on Cloud for success in AI



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Want to explore if Keras is a good choice?

- TensorFlow Dev Summit 2019 Keynote
  - https://youtu.be/b5Rs1ToD9aI?t=450

Summary : Jump start

- *Updated March 2019*

- **Strategy to Jump Start**
  - ❑ **Learn Keras with TensorFlow 2.0**
    - ❑ **Learn how to use tf.Keras**
  - ❑ **Use tf.Data with TensorFlow 2.0**
    - ❑ **Learn how to use Dataset API**
  - ❑ **Use Google Co-Lab**
    - ❑ **Just need web browser**
    - ❑ **Free hardware**

If your goal is to deploy immediately as products especially different target devices such smartphones today, TensorFlow Lite offers great path.

If your goal is research especially on advanced models that require dynamic graphs (such as varying text or video with unpredictable length), it is better to explore pytorch with fast.ai.

Other good Frameworks to learn

www.Fast.ai

Deep Learning with Fast.Ai

Acknowledgments

1) **KERAS.io**

François Chollet's
Book on "Deep Learning with Python"

2) **TensorFlow Dev Summit**

https://www.tensorflow.org/dev-summit

3) **Gartner**

www.gartner.com

4) **www.fast.ai**