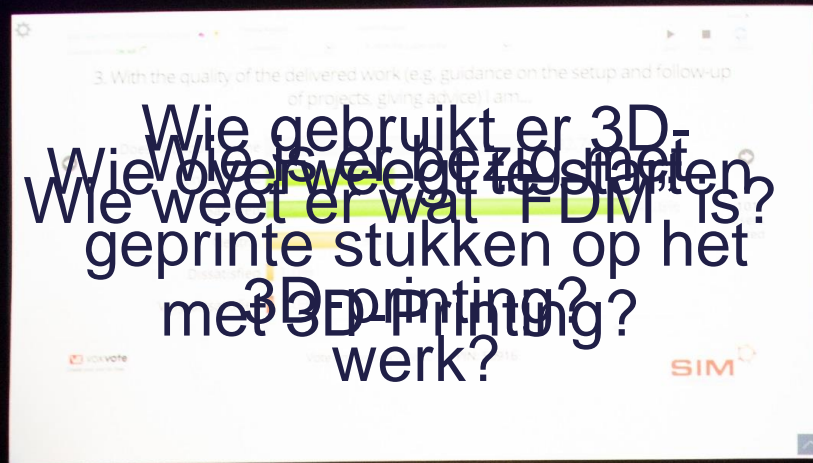


A graphic element for the ION logo, consisting of a thin, light-colored line that forms a partial circle around the letters 'ION'.

ION

Vereniging
Industrieel
Oppervlaktebehandelend
Nederland



Wie gebruikt er 3D-
Wie overweegt te starten
Wie weet er wat FDM is?
geprinte stukken op het
met 3D printing?
werk?





- Independent, non-profit, network
- Unite, represent, support
- Companies, Research, Education, Govt...
- Over 80 members, NL + BE
- Entire ecosystem

- ▶ Het publiek & wij
- ▶ ***Waarom* spreken we over 3D-printing?**

Description

R. BAKER METHOD OF MAKING DECORATIVE ARTICLES Filed Nov. 12, 1920 April 14, 1925. 1,533,300

I WITNESSES: INVENTOR 1/7

ATTORNEY Patented Apr. 14, 1925 UNITED STATES PATENT ELECTRIC MANUFACTURING COMPANY,

A CORPORATION OF PENNSYLVANIA.

\ METHOD OF MAKING DECORATIVE ARTICLES.

Application filed November 12, 1920. Serial No. 423,647..

To all whom it may concern: Be it known that I, RALPH BAKER, a citizen of the United States, and a resident of 'Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Methods of Making Decorative Articles, of which the following is a specification.

This invention relates to ornamental arc welding, more especially to utilizing an electric arc, such as is ordinarily employed for electric welding, for the formation of deposits to produce receptacles or containers of ornamental and useful shapes.

I have found that metal derived from a fusible metal electrode by the passage of a current therethrough may be so **deposited in superposed layers as to form various articles of an ornamental and useful nature**, it being among the objects of my invention to produce such objects of various designs.

April 14, 1925.

1,533,300

R. BAKER
METHOD OF MAKING DECORATIVE ARTICLES
Filed Nov. 12, 1920

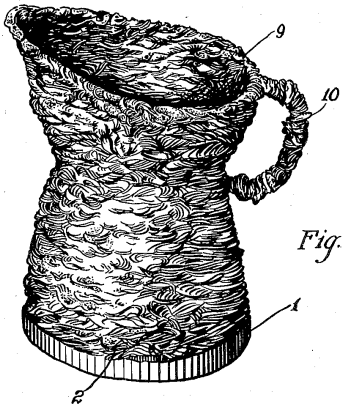


Fig. 1.

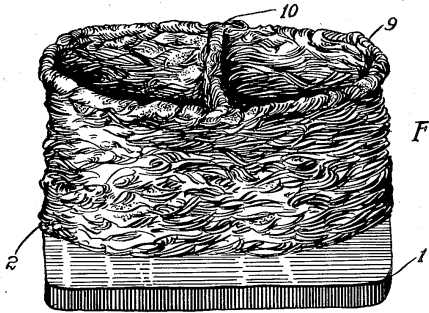


Fig. 2.

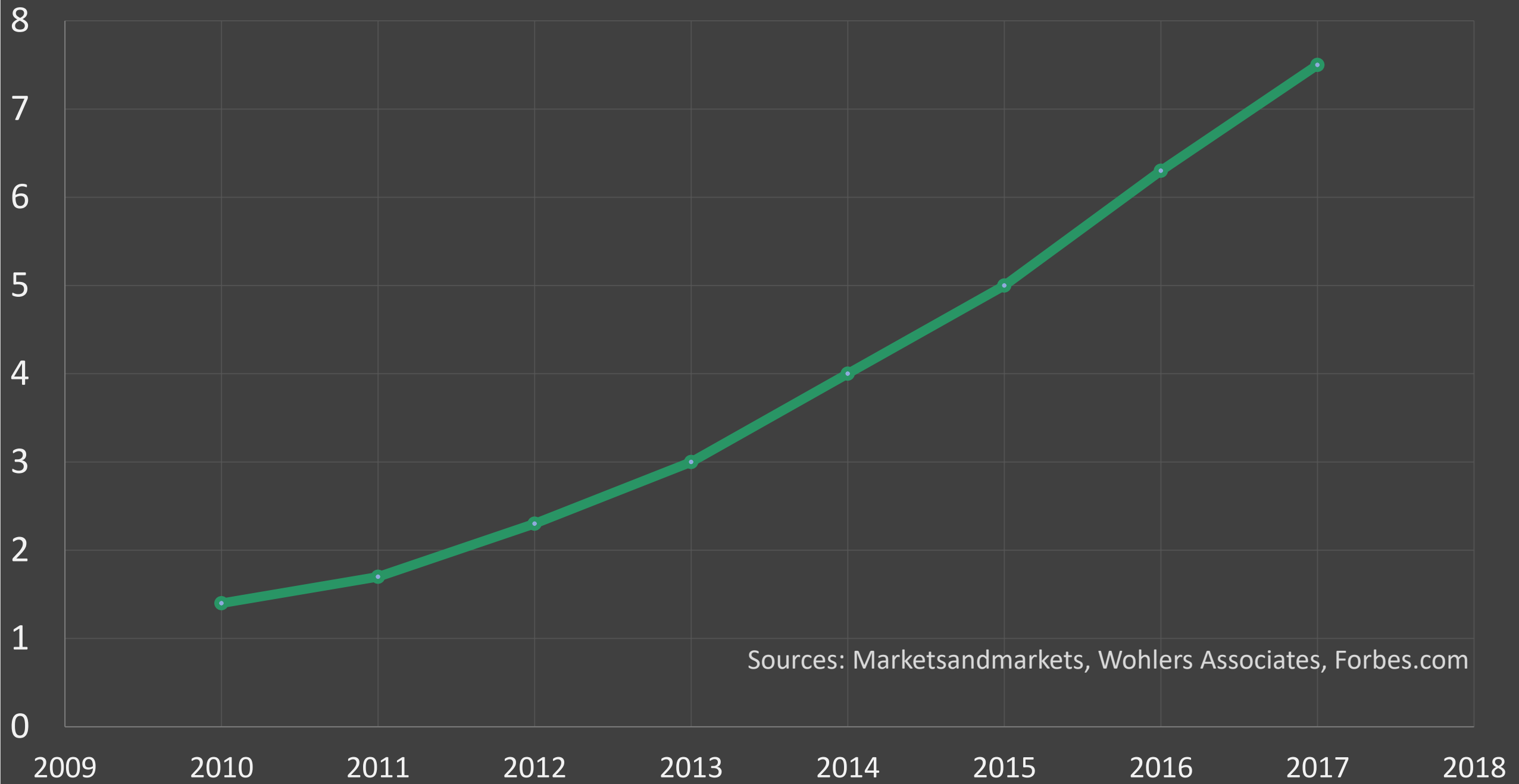


Fig. 3.

WITNESSES:
H. J. Helhamer
W. B. Jasper.

INVENTOR
Ralph Baker
BY
Charles E. Barr
ATTORNEY

Annual global turnover; US\$, billion



67



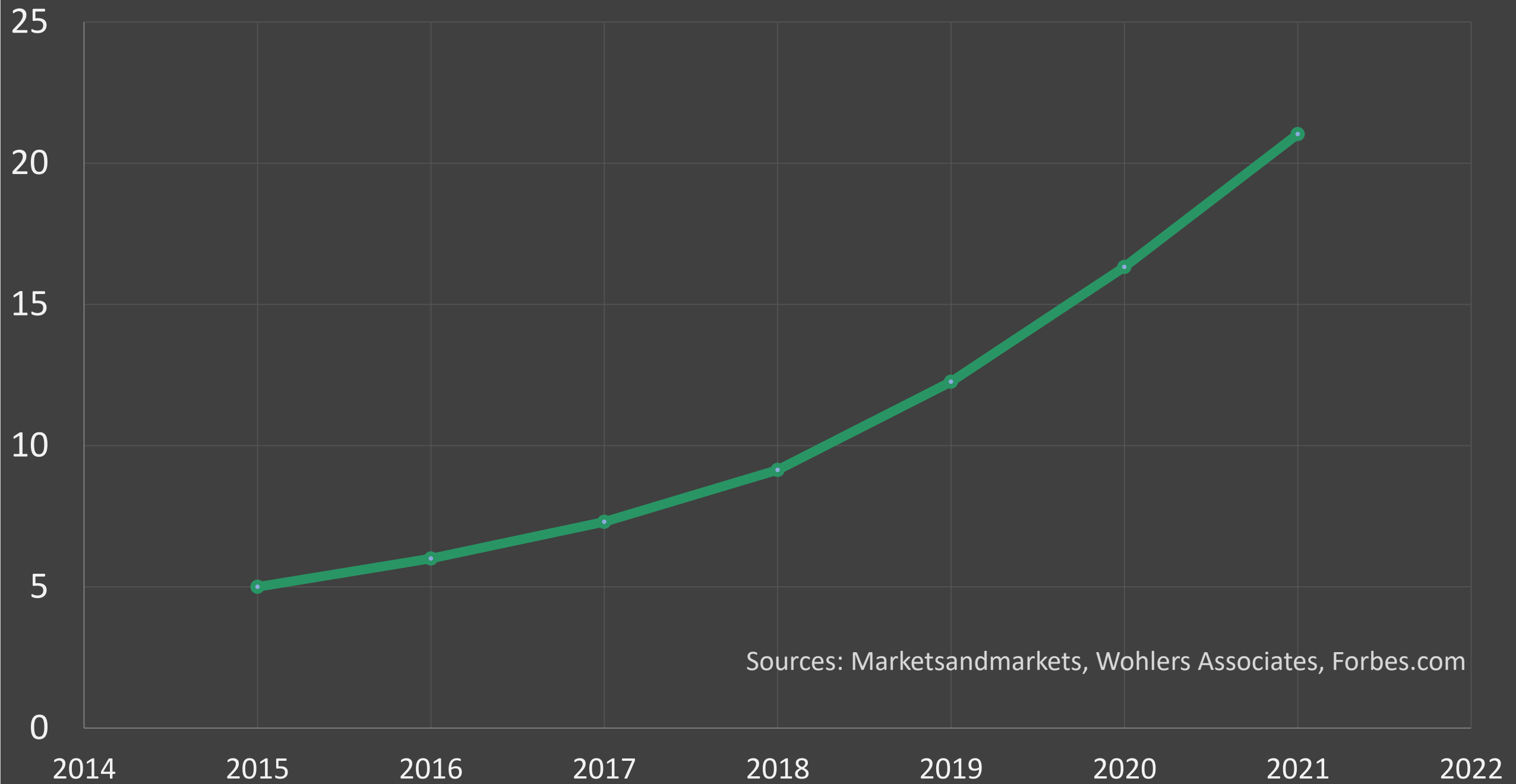
1,5



2017



Anticipated Annual global turnover; US\$, billion



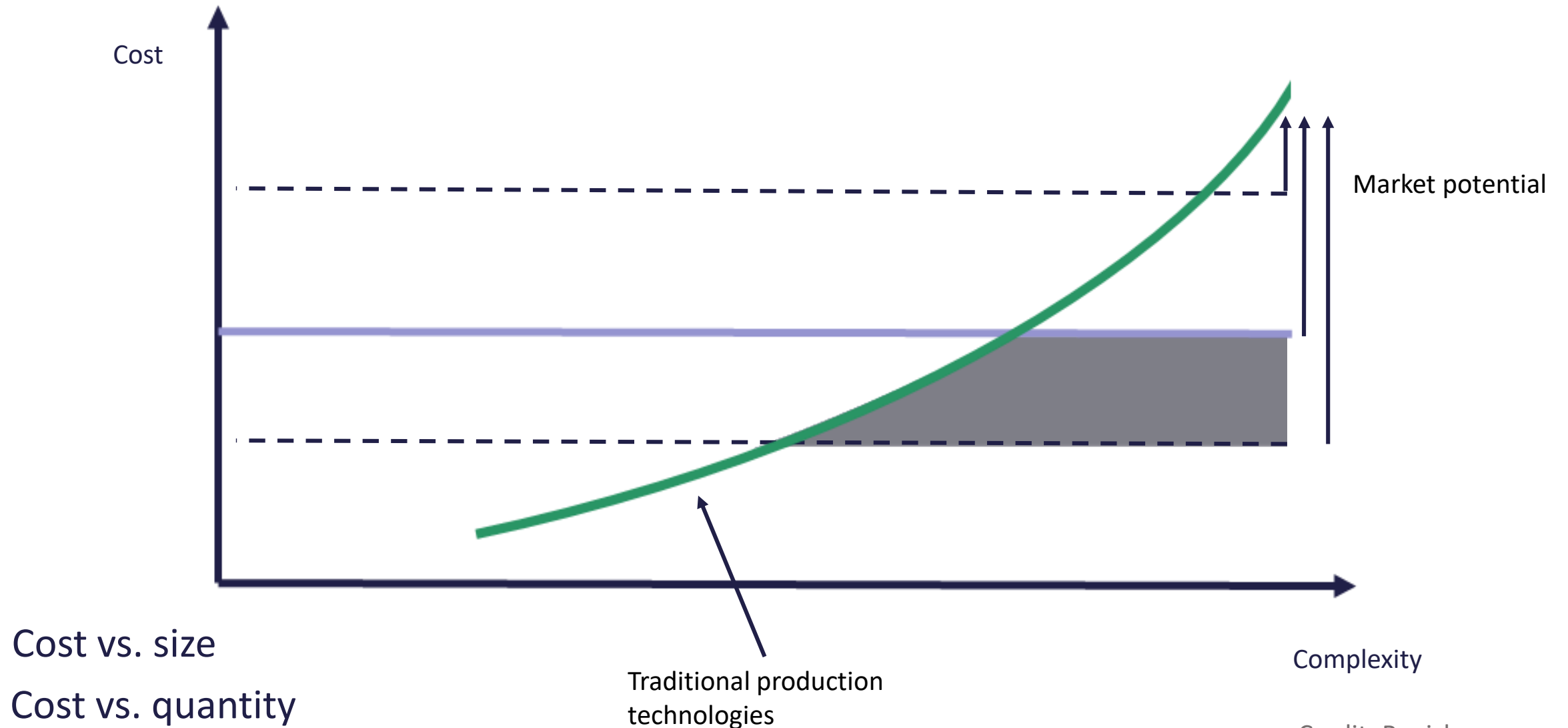
2017

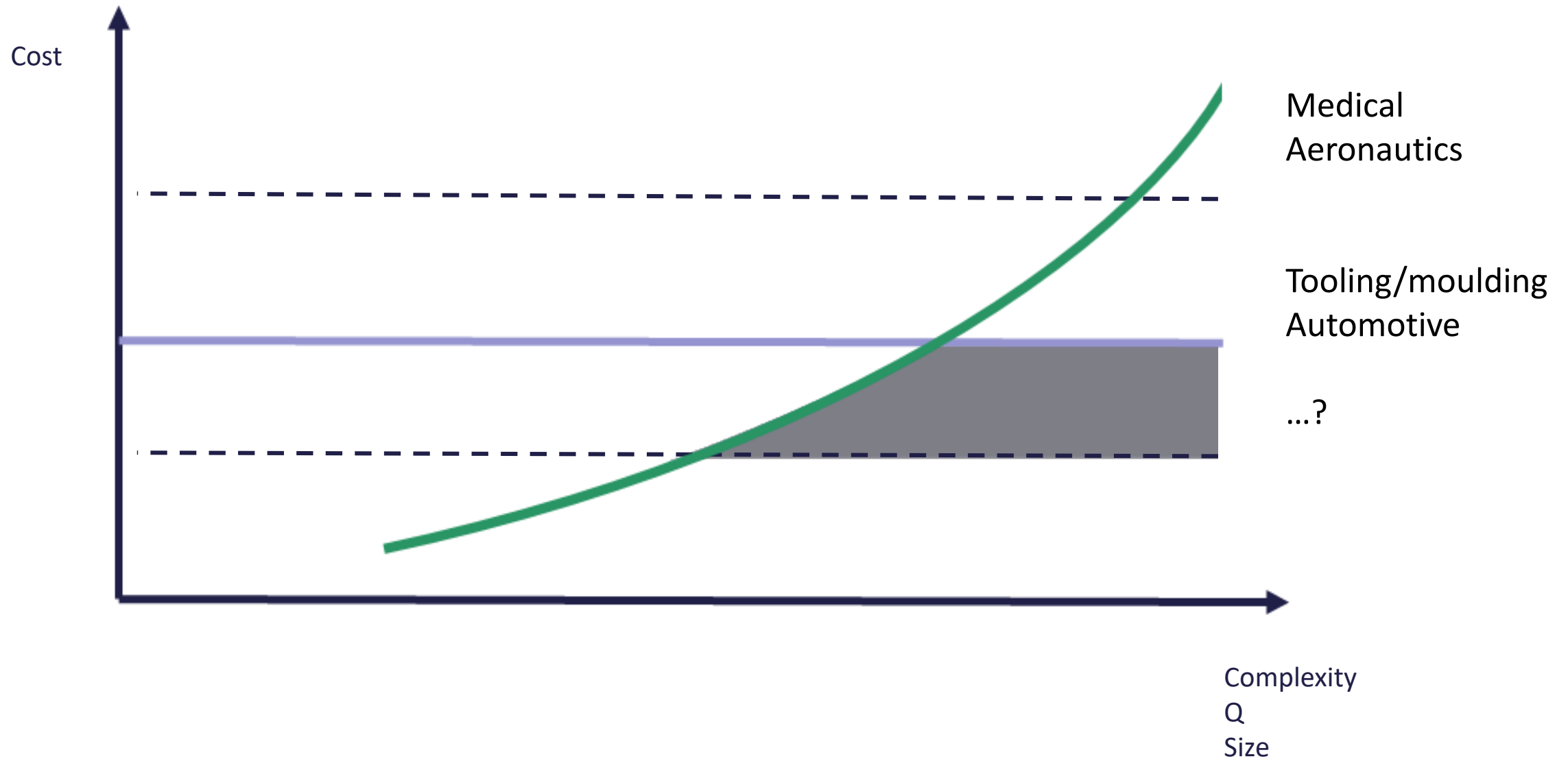
2020

2030

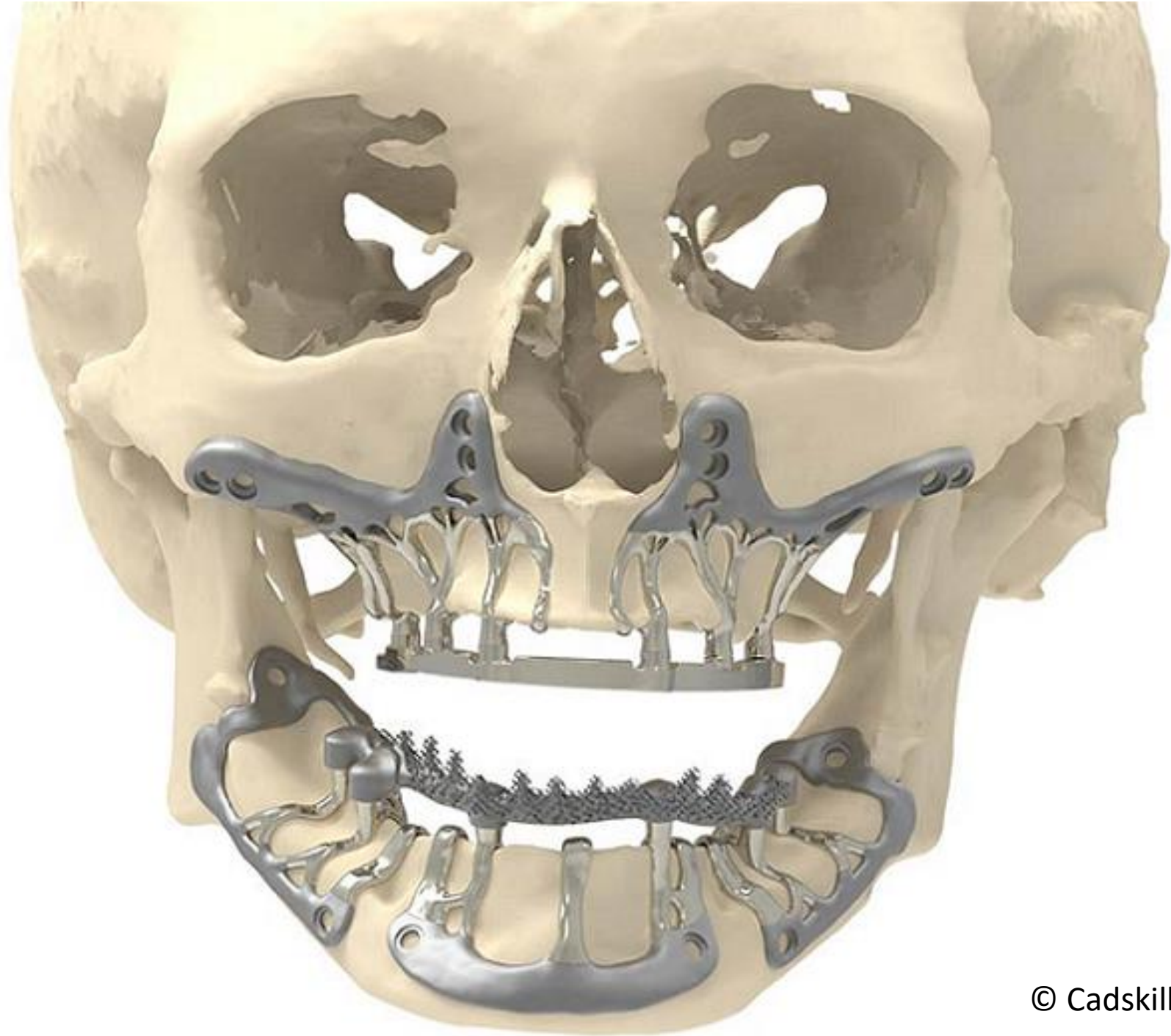


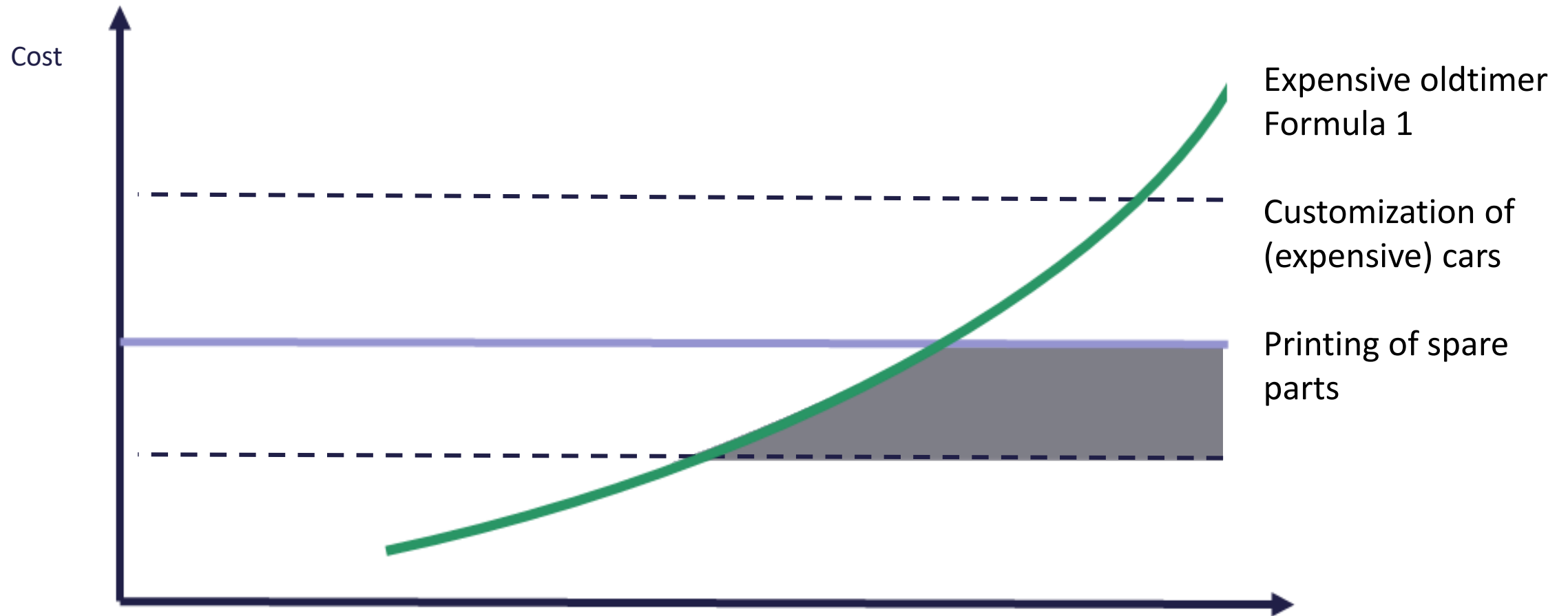
2040 - 2060





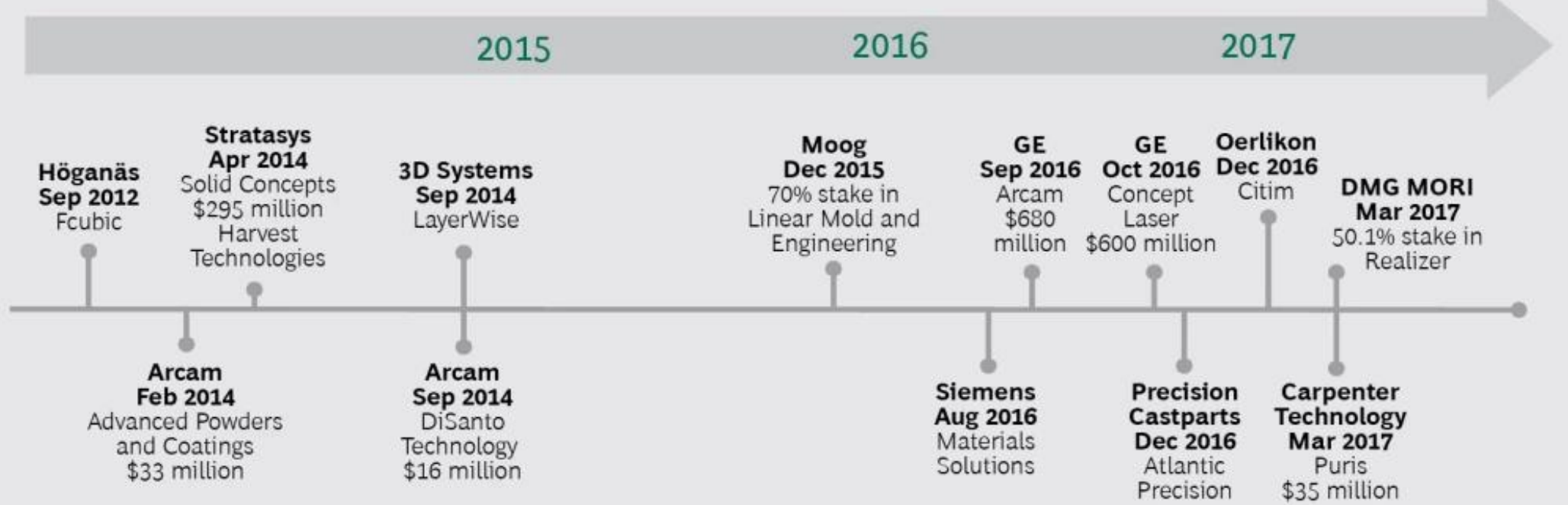




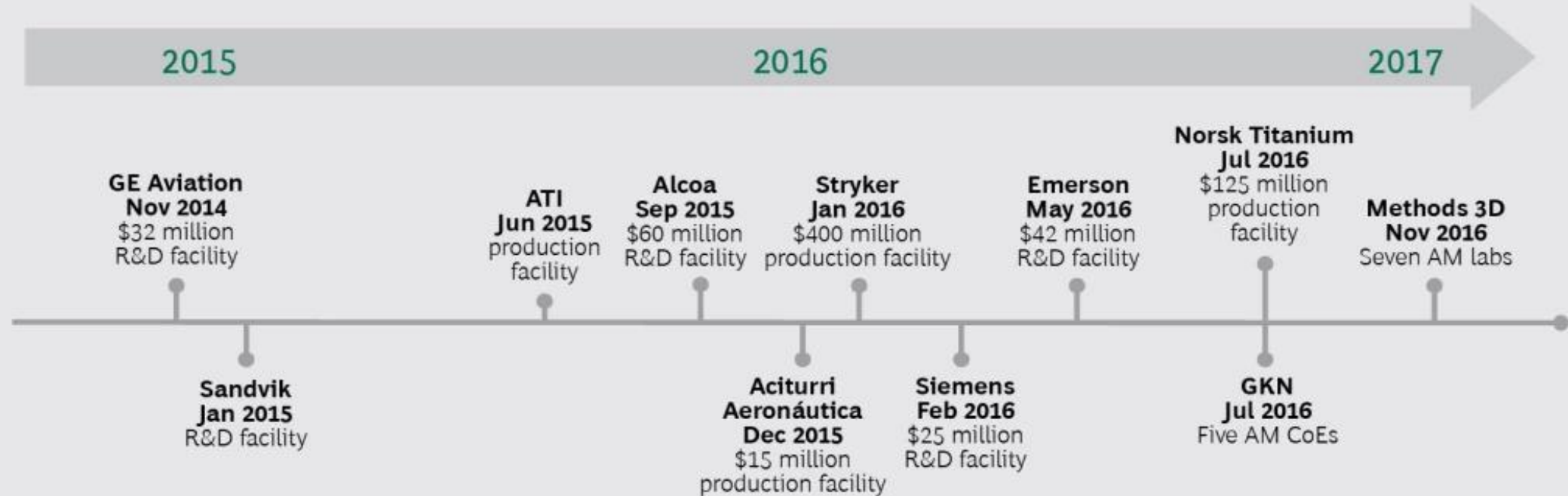




ACQUISITIONS



NEW R&D FACILITY, COE, OR PILOT PRODUCTION PLANT



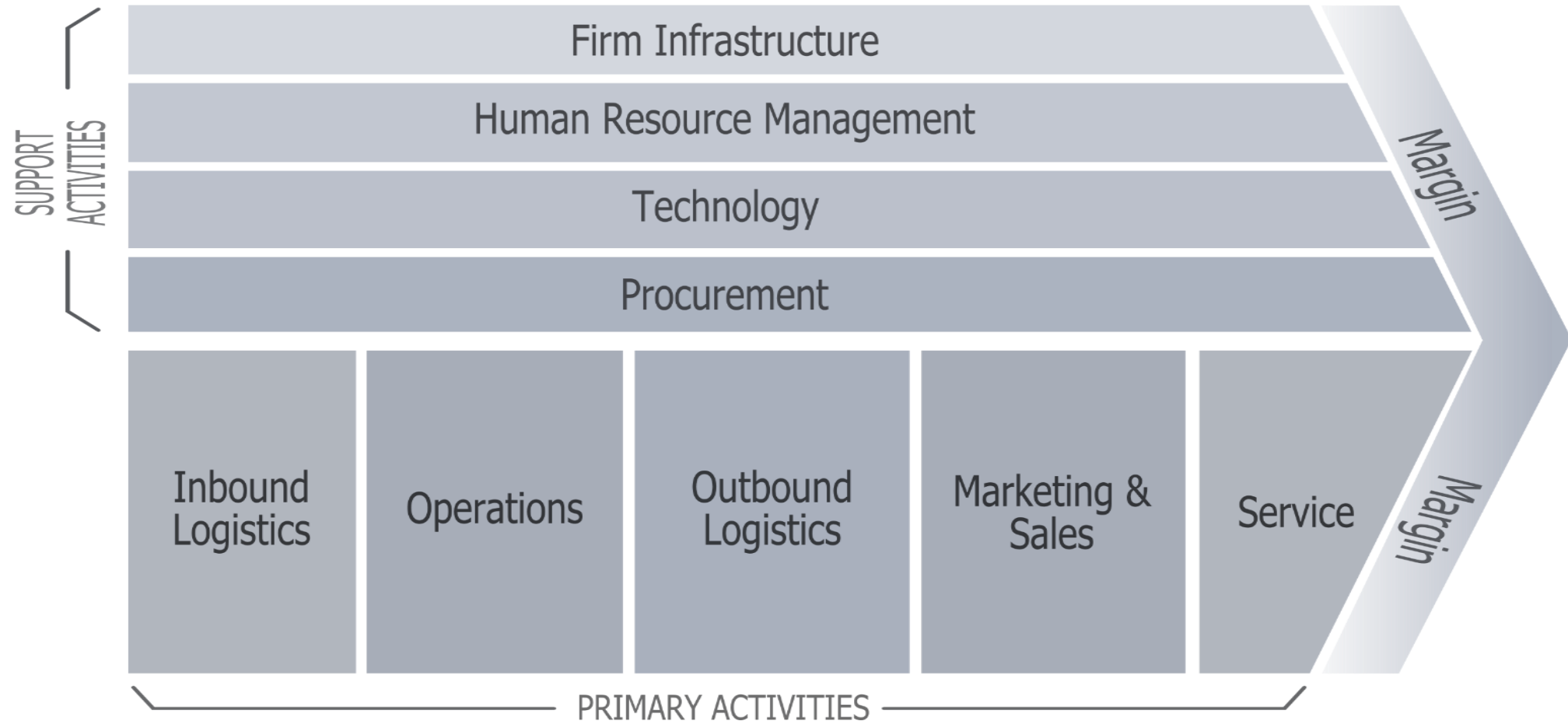
Sources: Metal AM magazine; Wohlers Associates; BCG research.

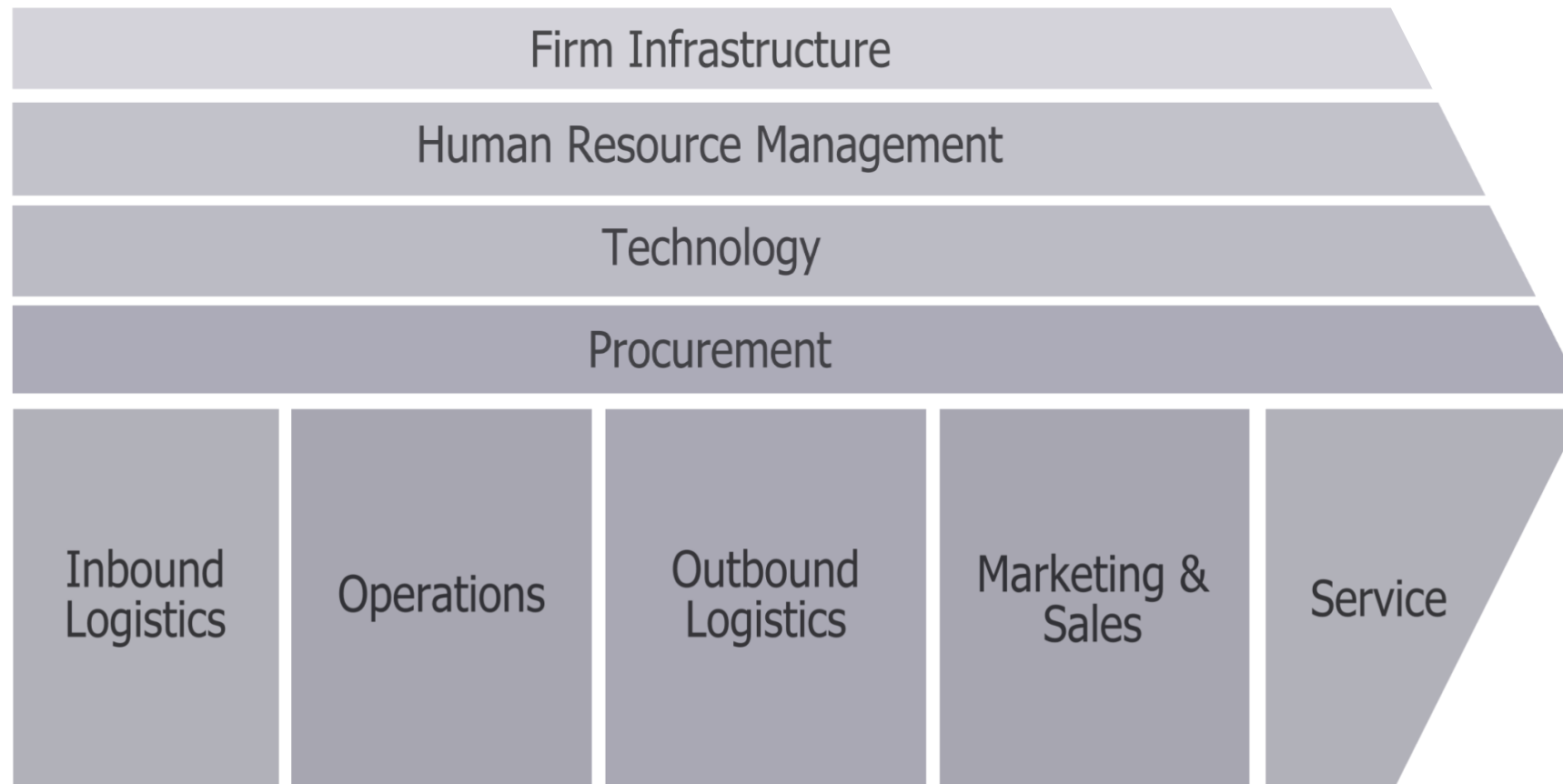
- ▶ Het publiek & wij
- ▶ Waarom zijn we hier?
- ▶ **Het AM-ecosysteem**

Market AM

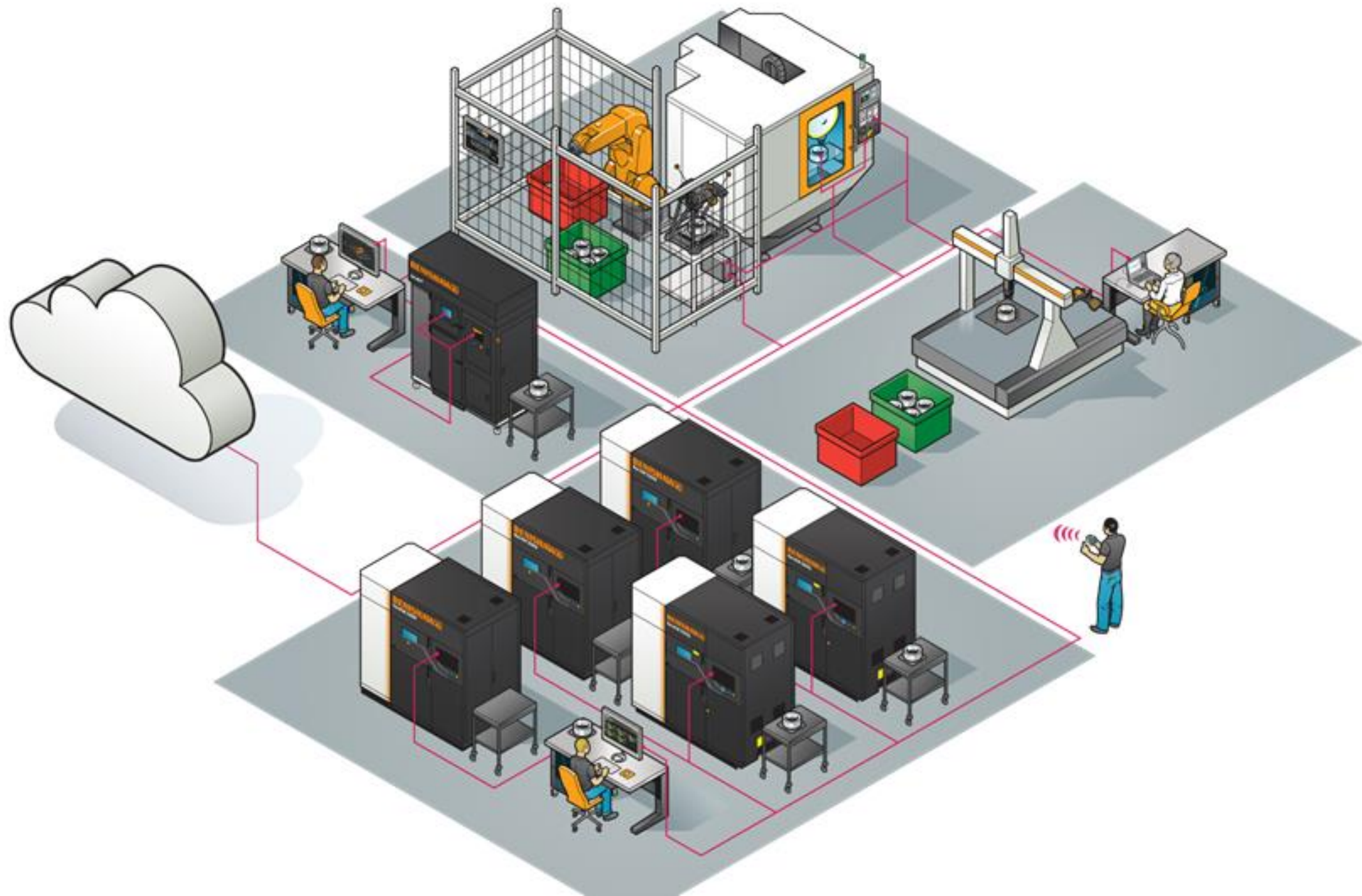


FLAMED











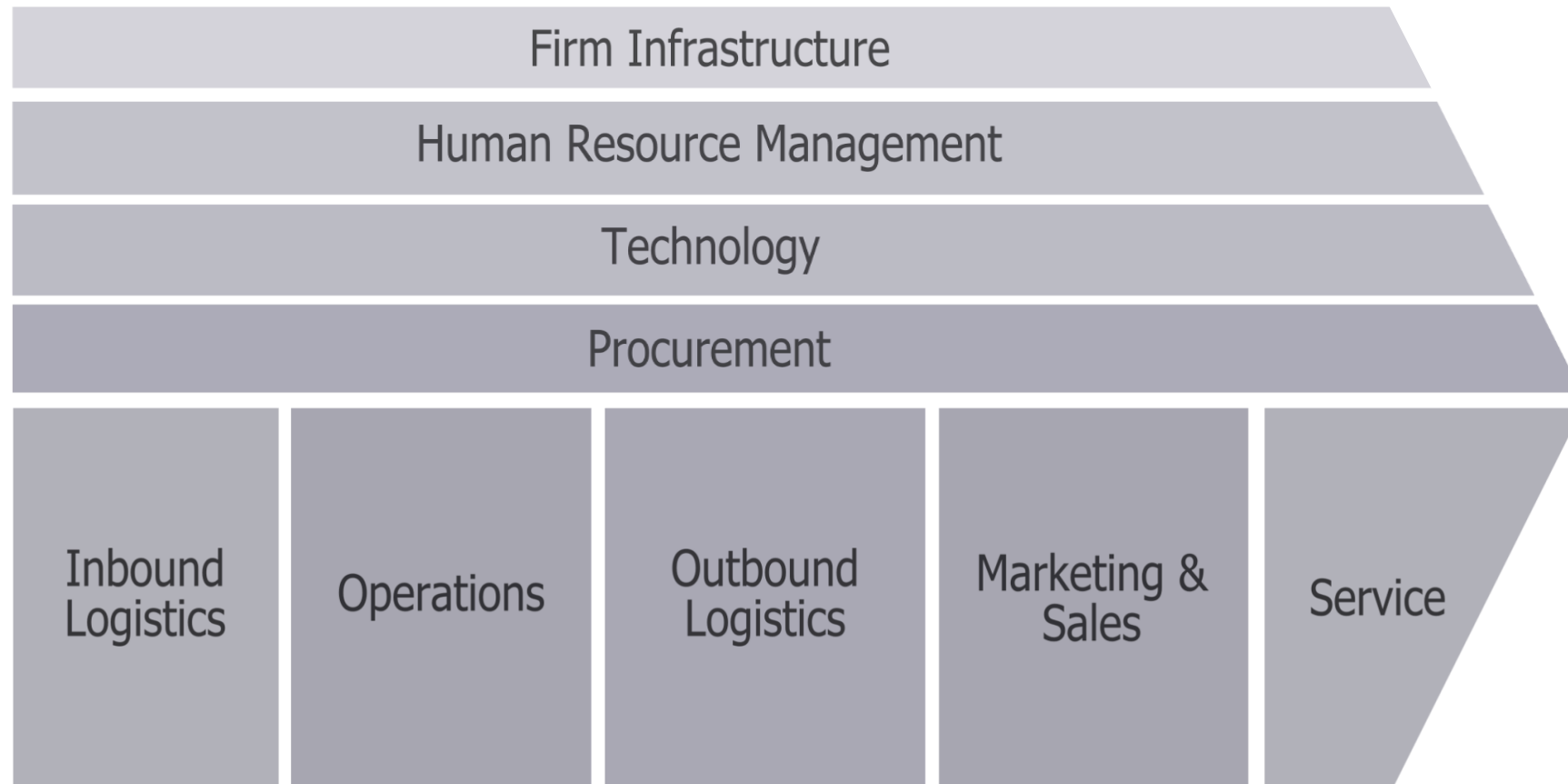




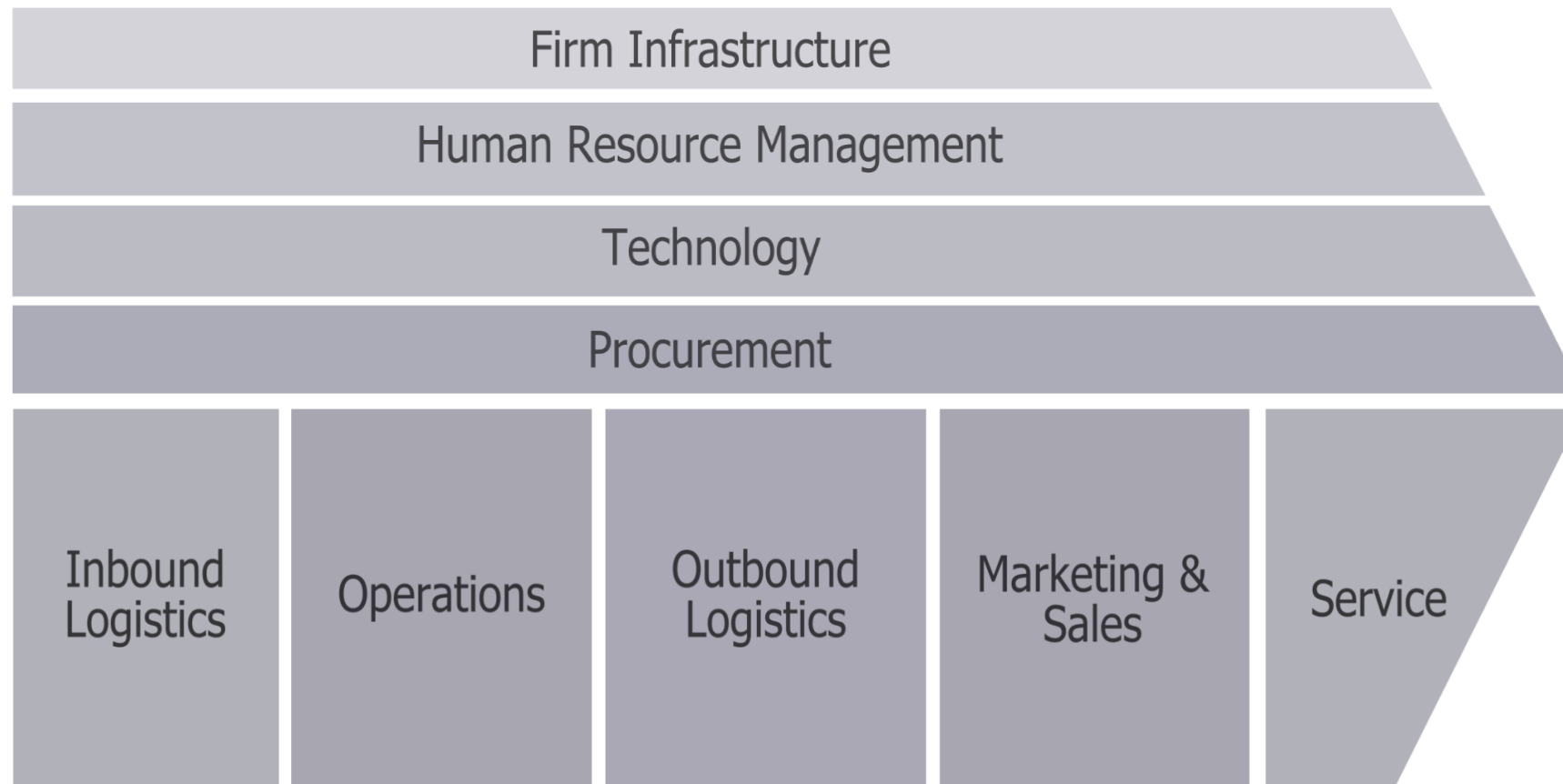
MetalFAB1
Industrial Additive Manufacturing System

Additive Industries









Traditional Supply Chain



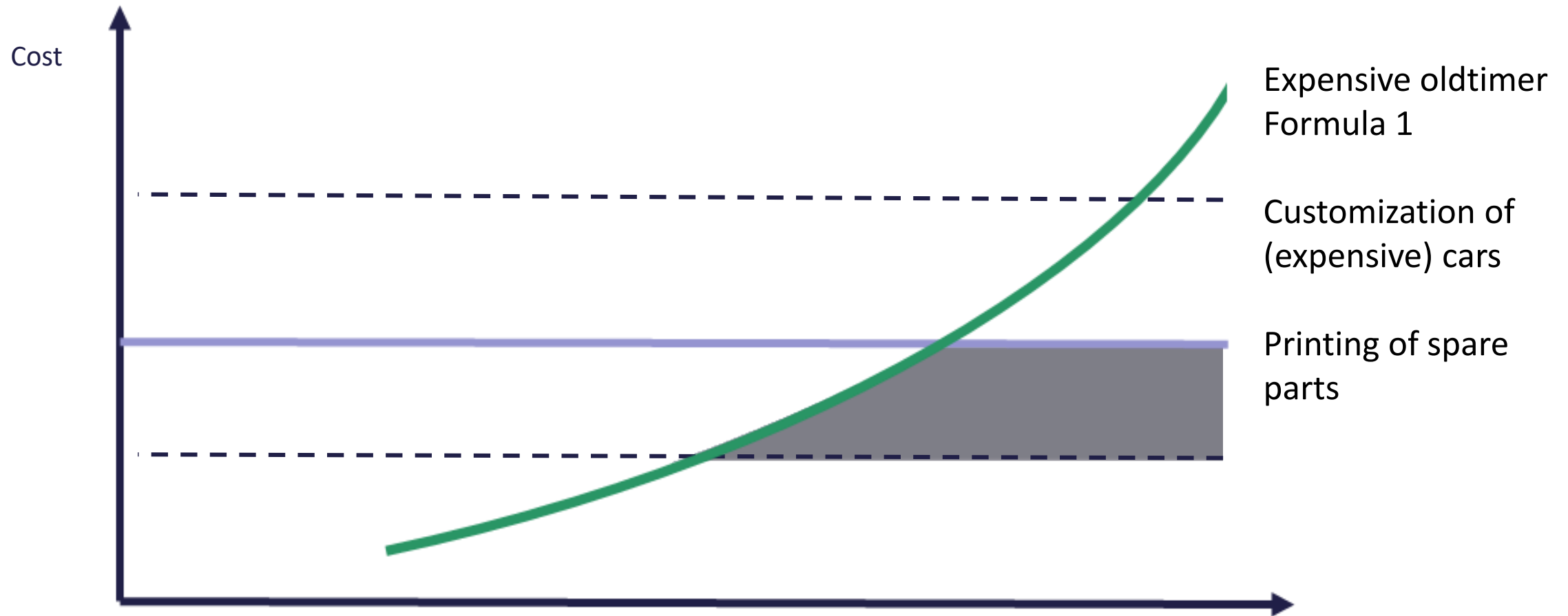
"3D Shop" Supply Chain



"Home Printing" Supply Chain



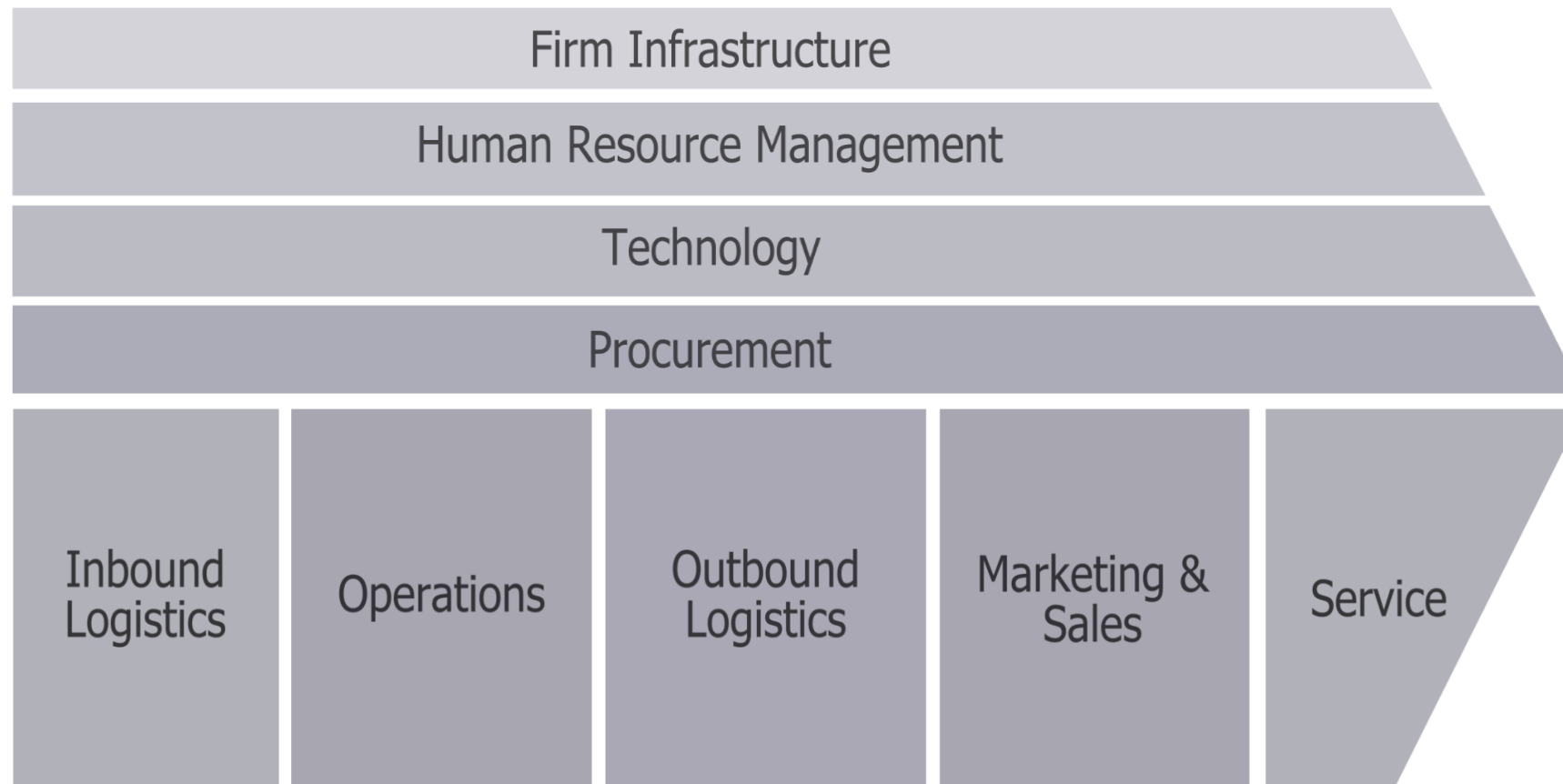
maps.3dhubs.com



3

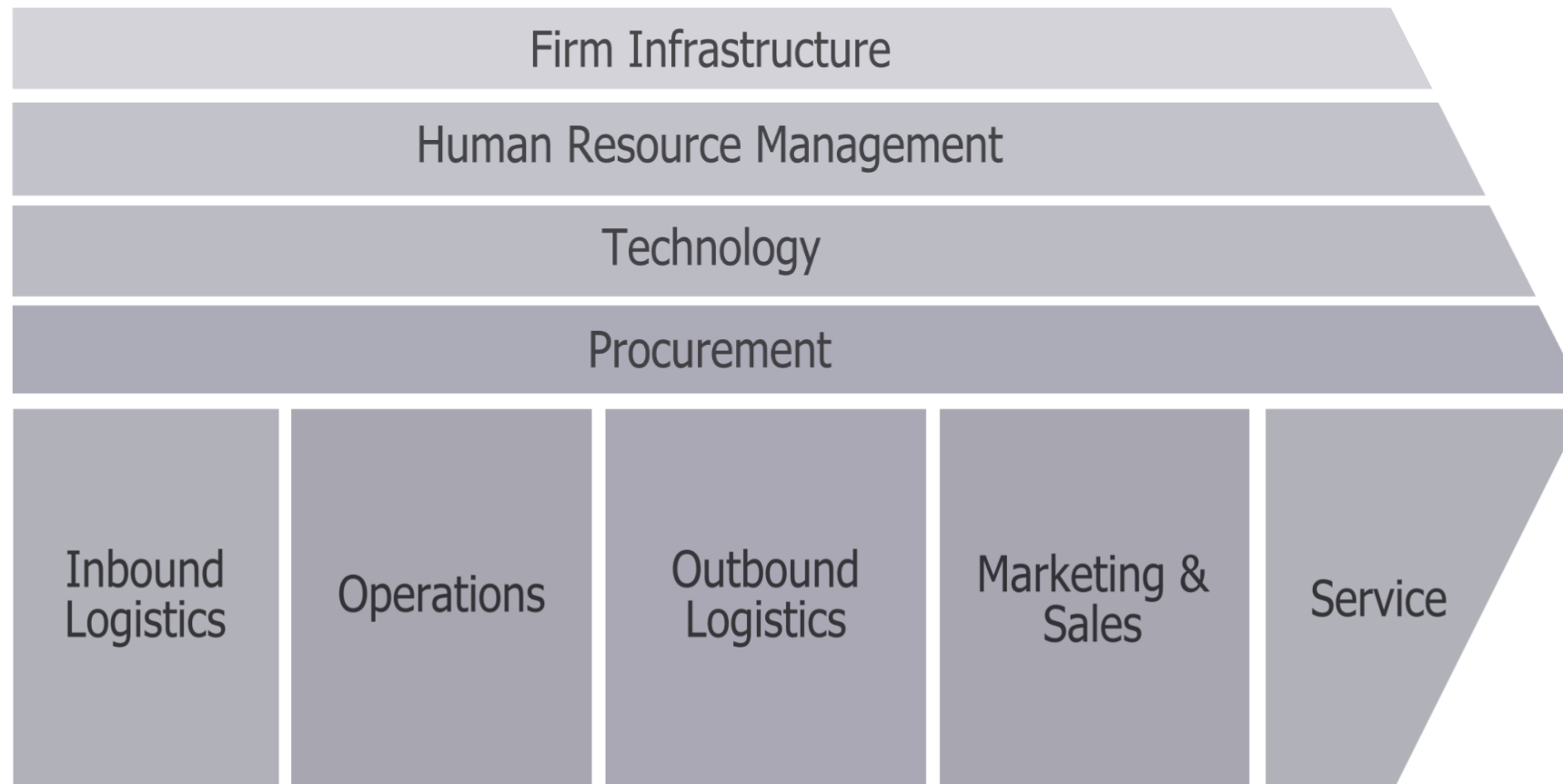
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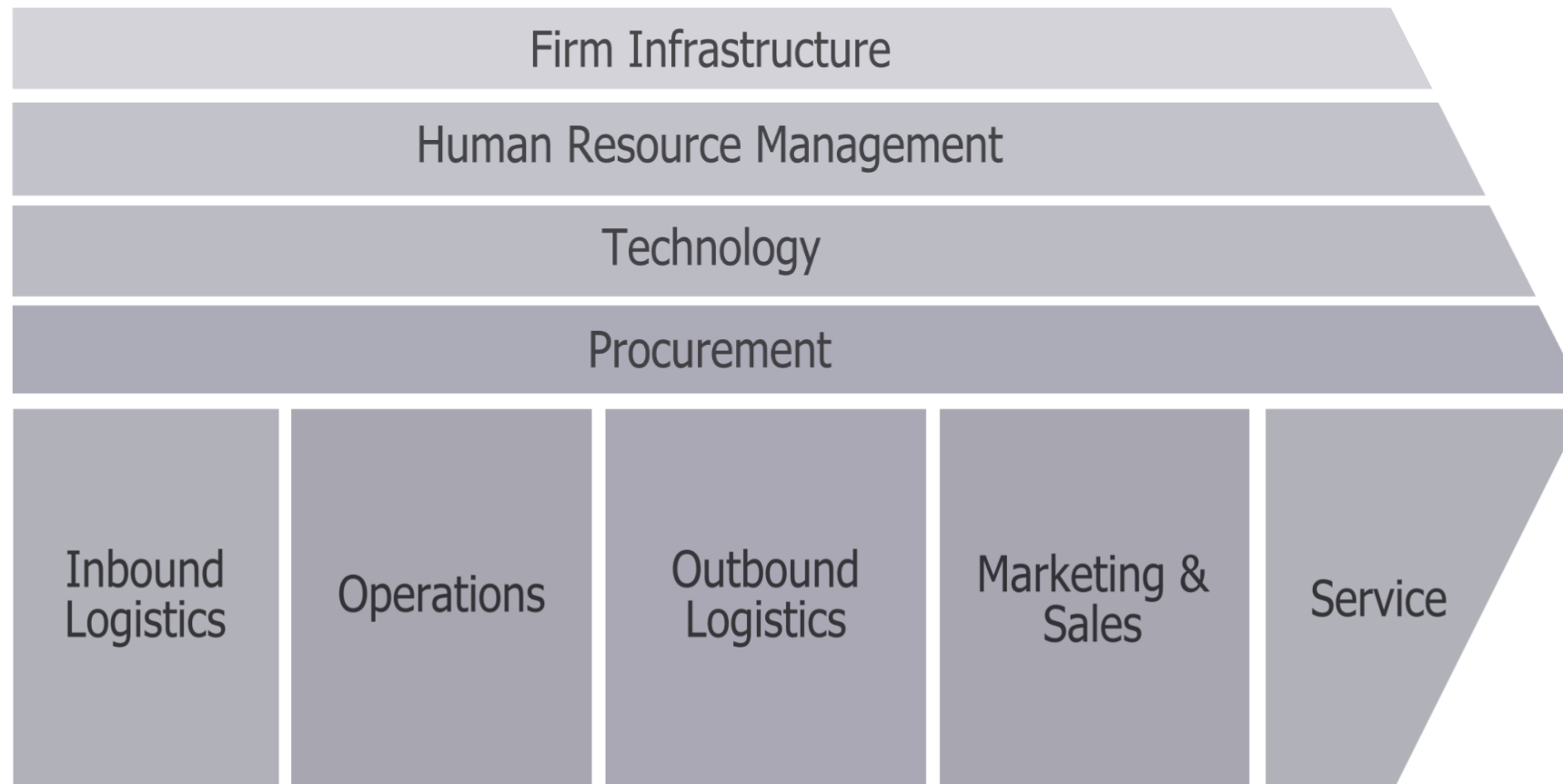


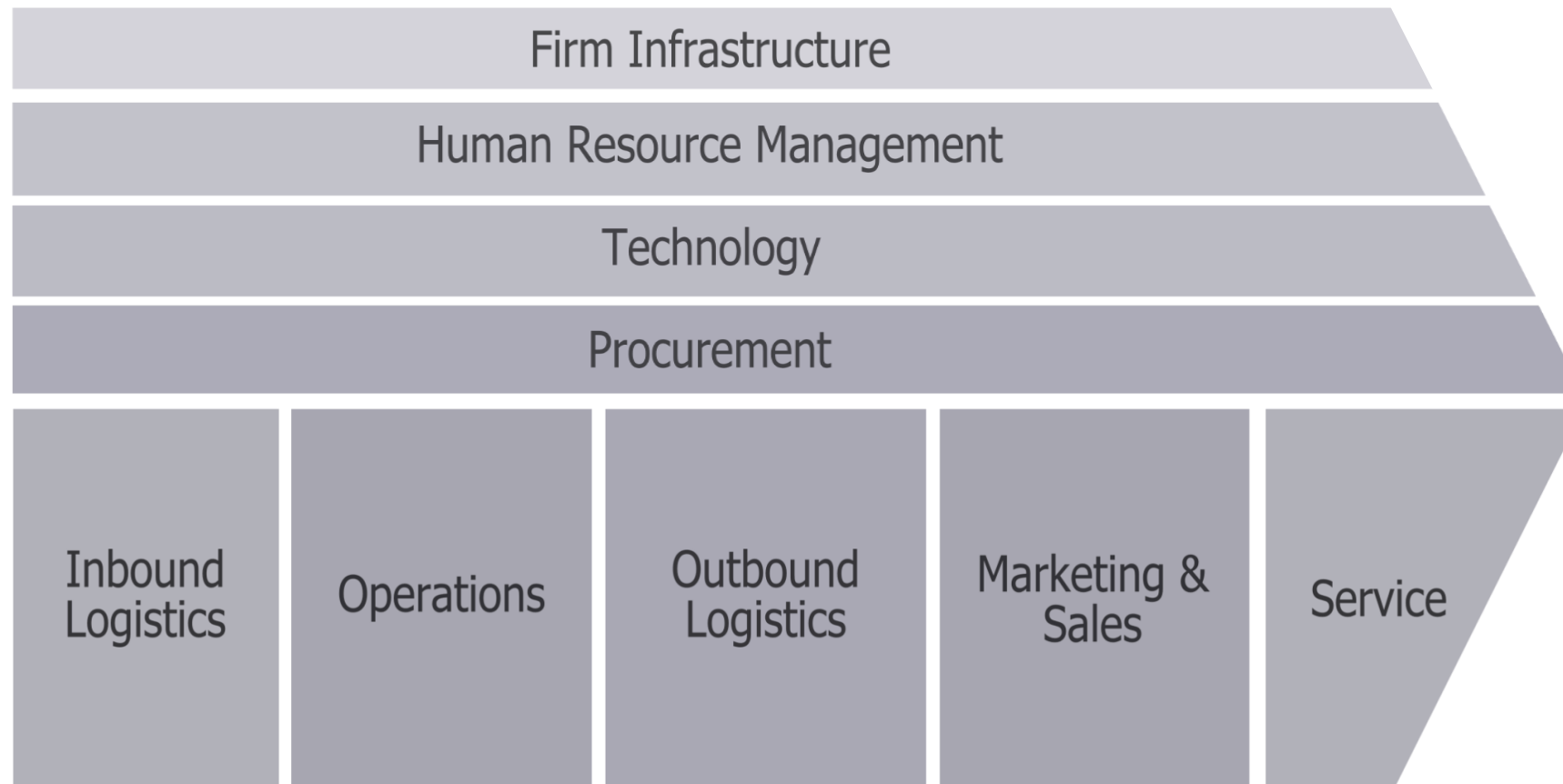


ADDITIVE MANUFACTURING TECHNOLOGIES









- ▶ Het publiek & wij
- ▶ Waarom zijn we hier?
- ▶ Het AM-ecosysteem
- ▶ **Opportuniteiten**

Opportunities



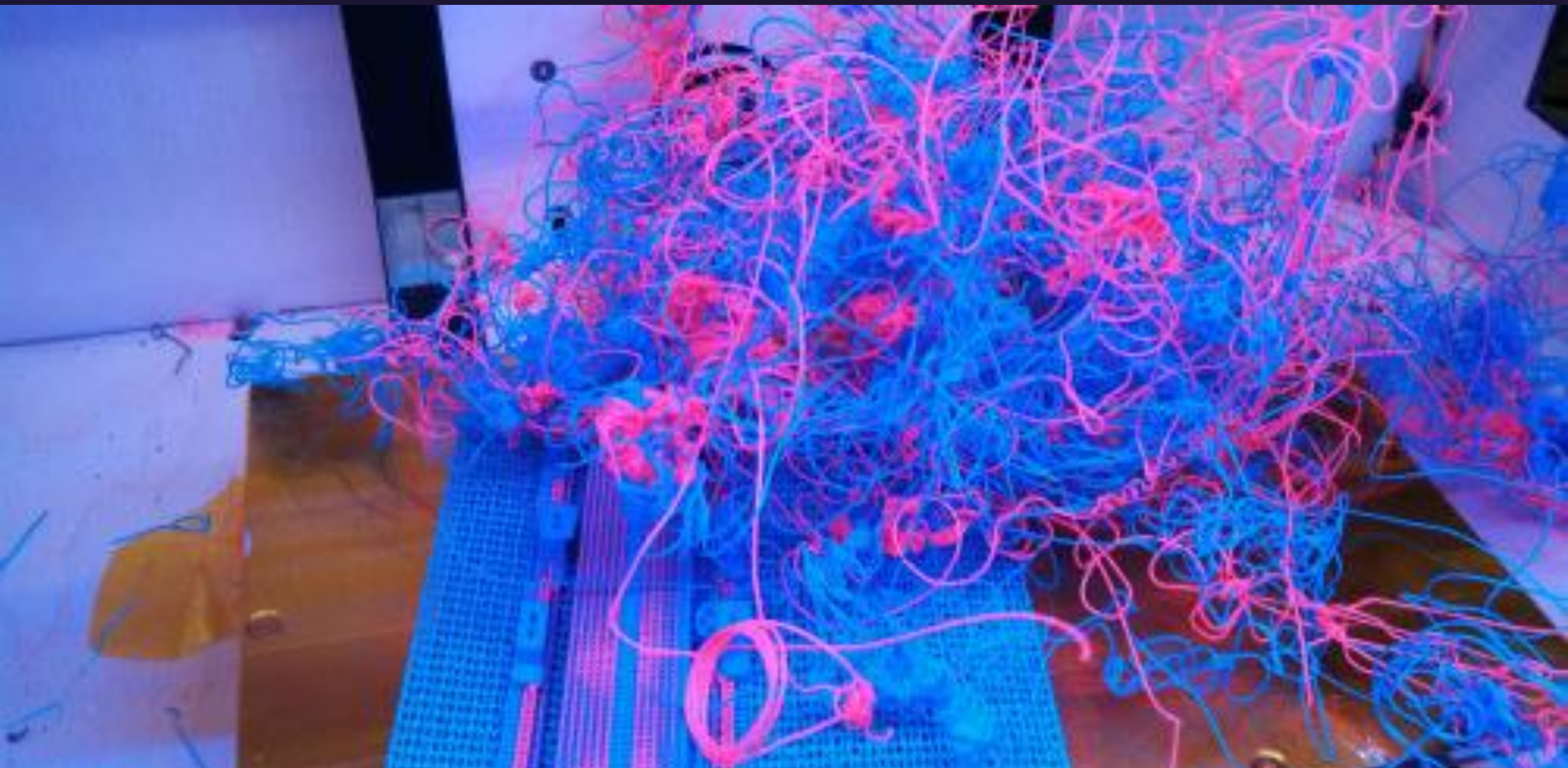
FLAM3D

Where's the money?

For individuals



FLAM3D





Where's the money?

For individuals

It's where the lack of skills is.



Where's the money?

For companies in the AM Value Chain





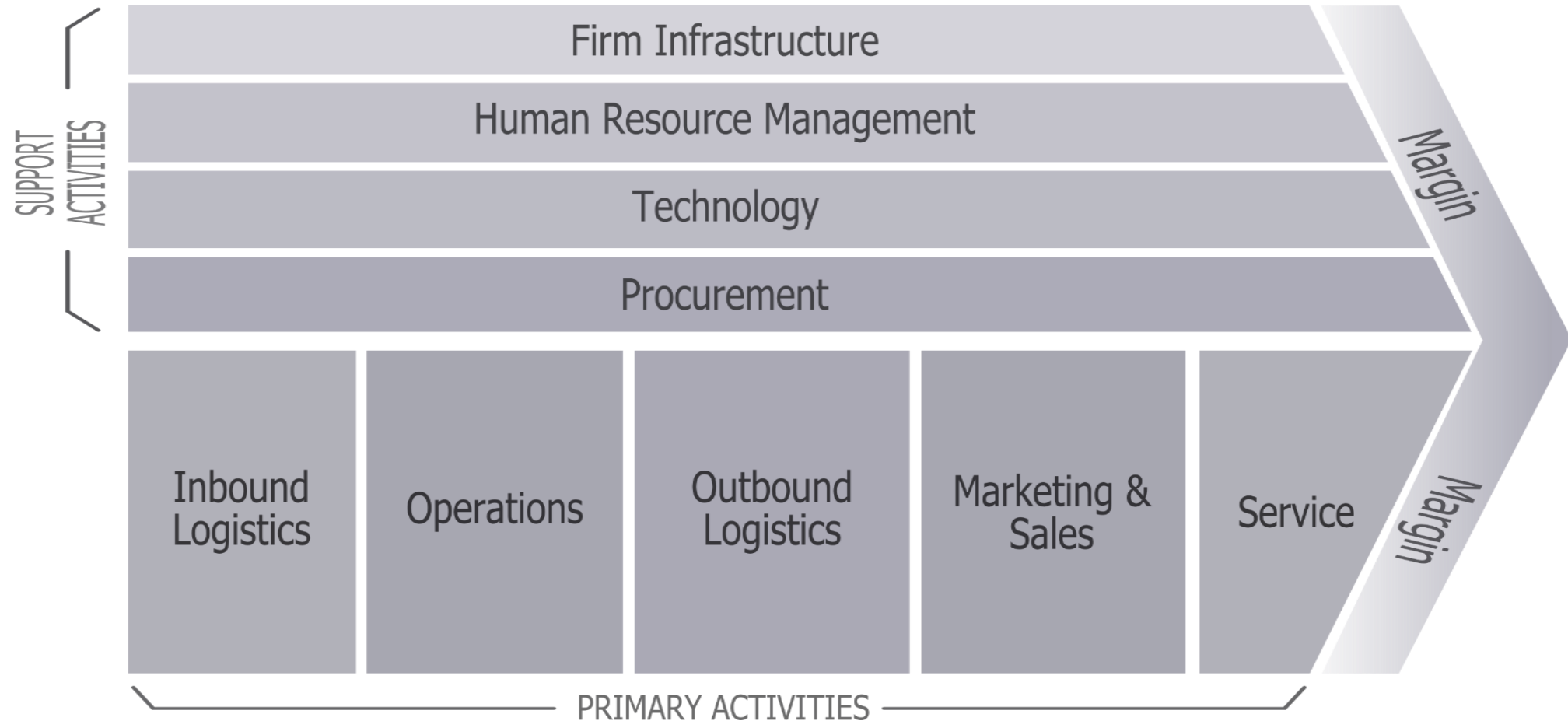


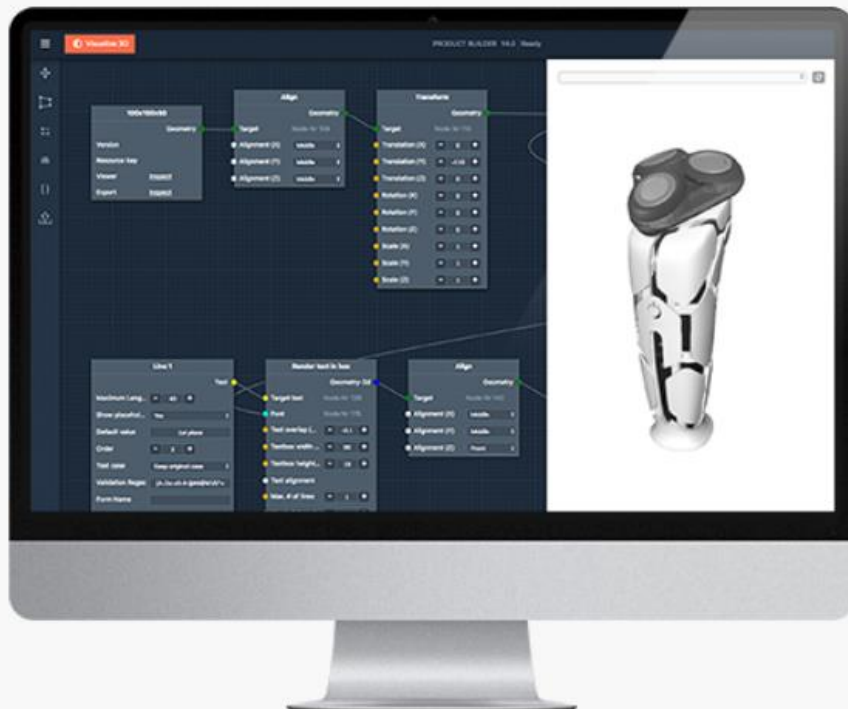
- **Hybride, Combinatie Additive/subtractive**
- **Multiple-source polymerisation**
- **Printing in trucks?**
- **In Between....**

Market AM



FLAMED



[HOME](#)[SOFTWARE PLATFORM](#)[INDUSTRIES](#)[Contact us](#)

Product Parametrization

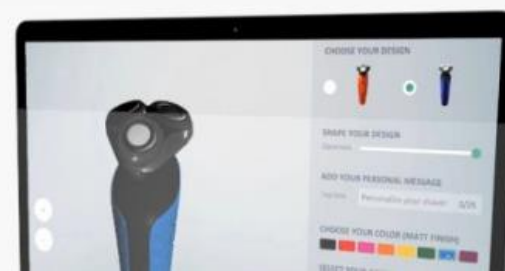
The Twikbot platform transforms your product from a digital input (3D file, 3D scan, AI) to a configurable format for visual customization and digital manufacturing.

- Product parametrization from your input (3D file, 3D scan, AI)
- Define tweaks within parameters: twist, scale, multiply bend and more
- Emboss, deboss and cut-through
- Define materials and finishes
- Combine 3D model with assets: fonts/images/patterns/textures



Visual Product Customization

Twikbot enables real-time product visualization and 3D configuration





Thrinno

THE METAL 3D PRINT-QUOTING EXPERTS

About

Mission

To become the industry standard software for simple, accurate pricing for metal 3D printing.

ADDITIVE INDUSTRIES SLUIT CONTRACTEN MET SAUBER EN 3RD DIMENSION

22 okt 2018 | Manufacturers



BASF
We create chemistry

Home BASF Germany

Company

BASF New Business

About us ▾

Scouting

Home > Company / BASF Materials

BUSINESS & FINANCIAL NEWS

Joint Press Release

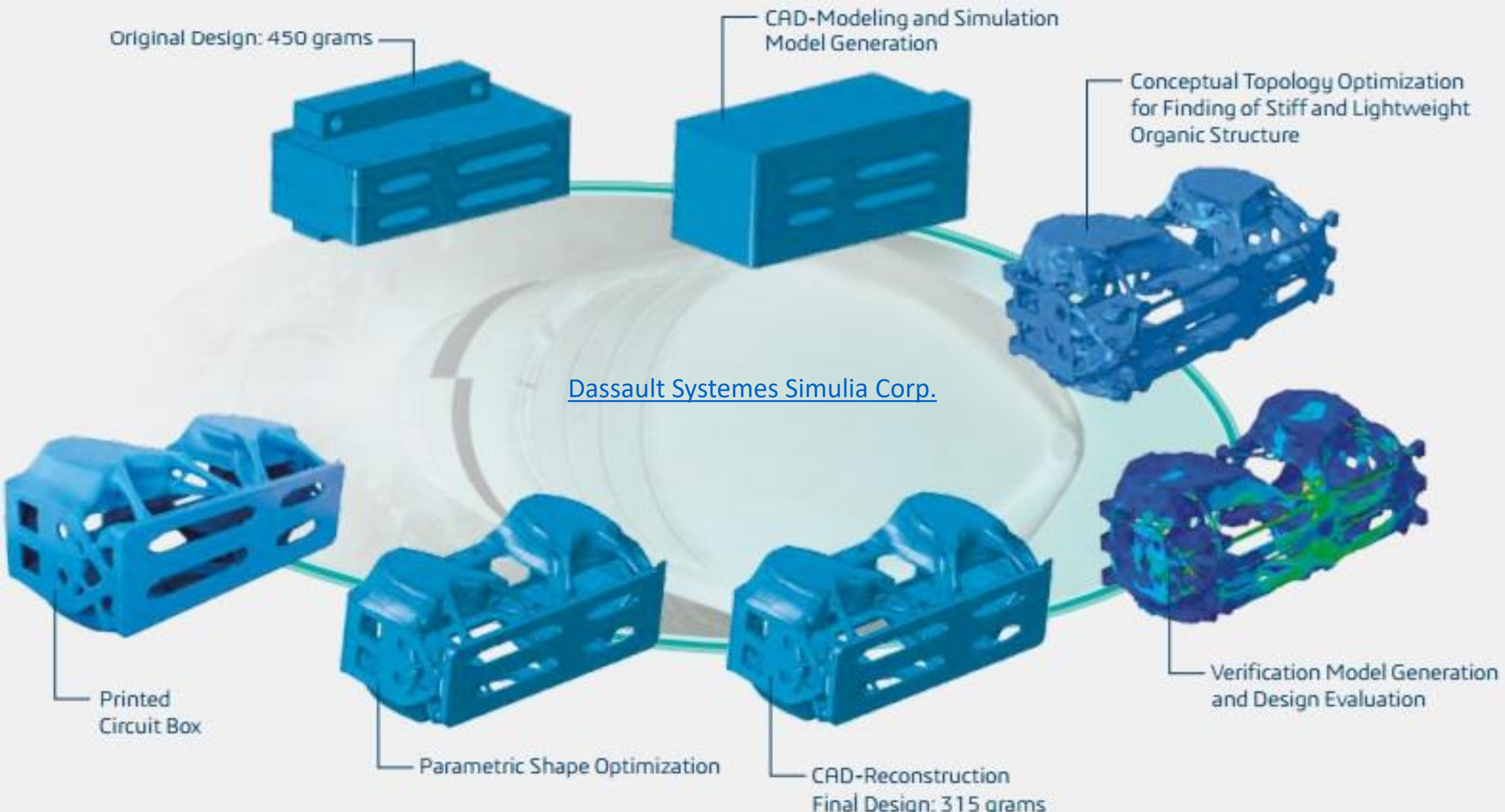
Optimizing for 3D printing

- BASF and Belgian company
- Chemical company invests

Ludwigshafen/Germany, Leuven/Belgium – July 19, 2018 – BASF is expanding its cooperation with Additive Industries, a leading supplier of 3D printing technologies. At the same time, BASF has agreed to invest US\$25 million in Additive Industries, a company, which is headquartered in Leuven. The two partners are working together within the framework of an open partnership to develop new materials and software for various 3D printing technologies and bring them together on the qualification of a new optimized design made by 3D printing. A new optimized design made by 3D printing.

Partnership

achieve serial
re.



MSC Software

Covered by

simufact
MSC Software Company

MSC Software

Topology
Optimization

Design

Additive
Manufacturing

Heat
Treatment

Cutting
Plate &
Supports

HIP

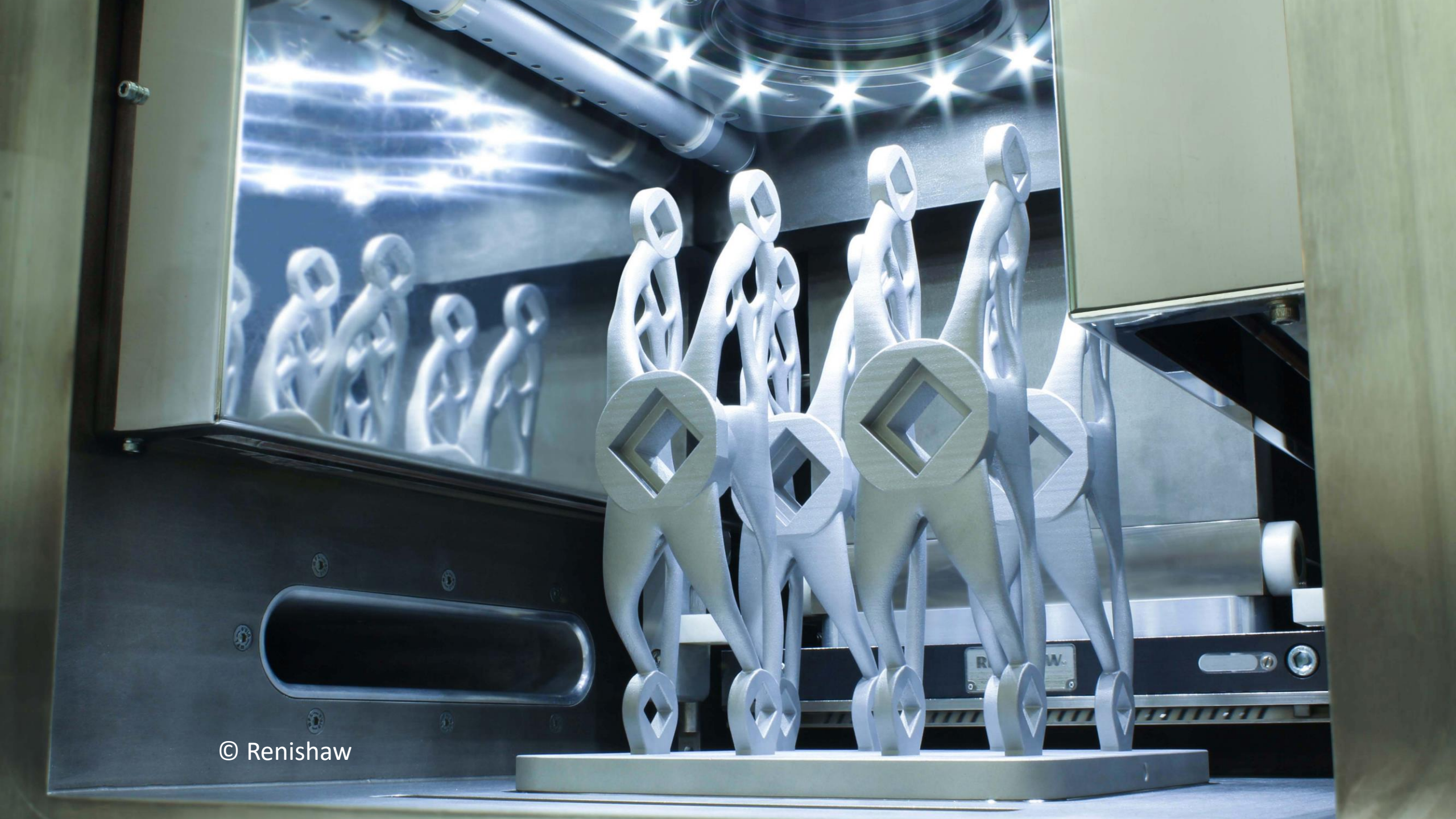
Machining

Surface
Treatment

Stress &
Fatigue
Analysis

FEEDBACK





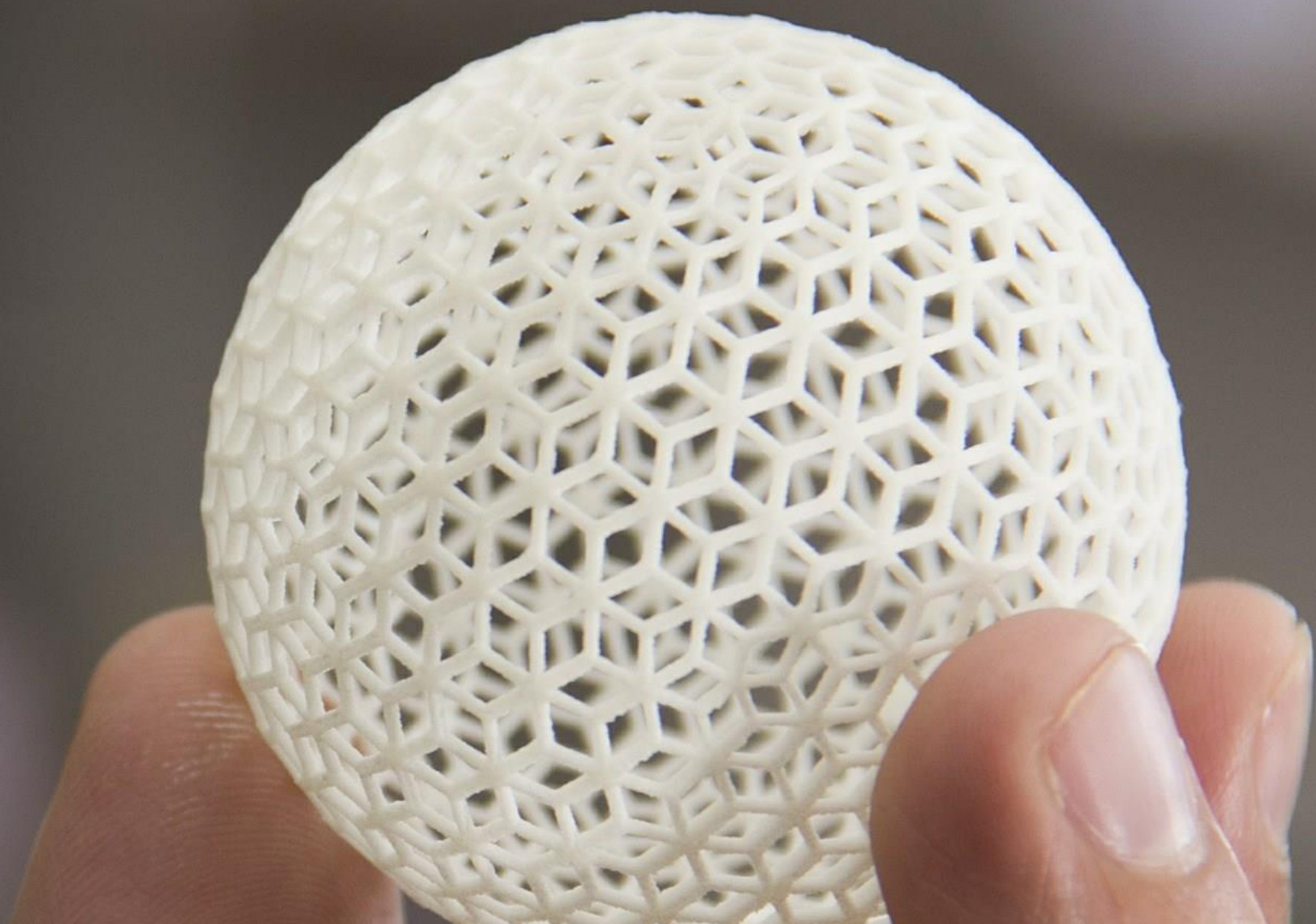
© Renishaw





© Renishaw







Hoet
couture

Opportunities



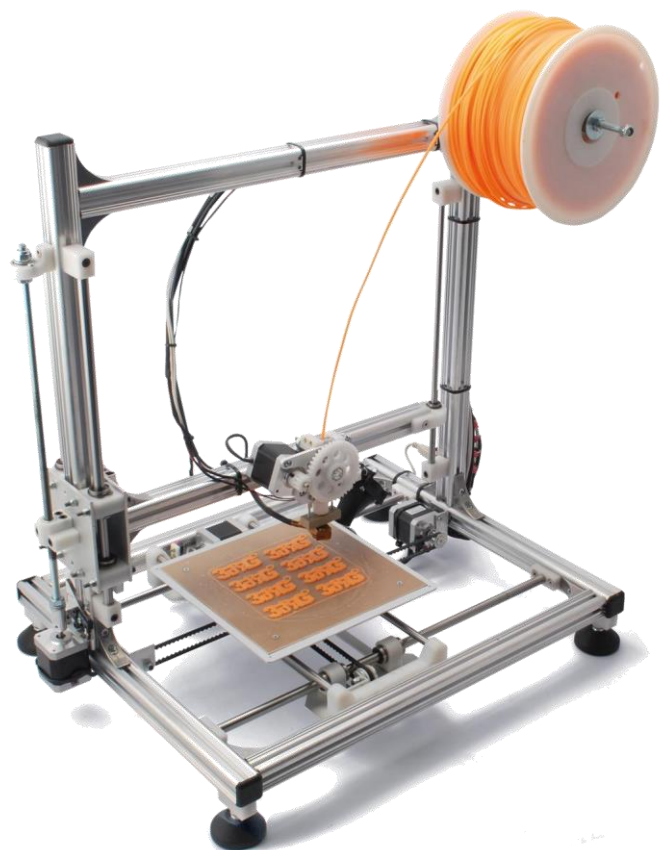
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Where's the money?

For companies outside the AM Value Chain

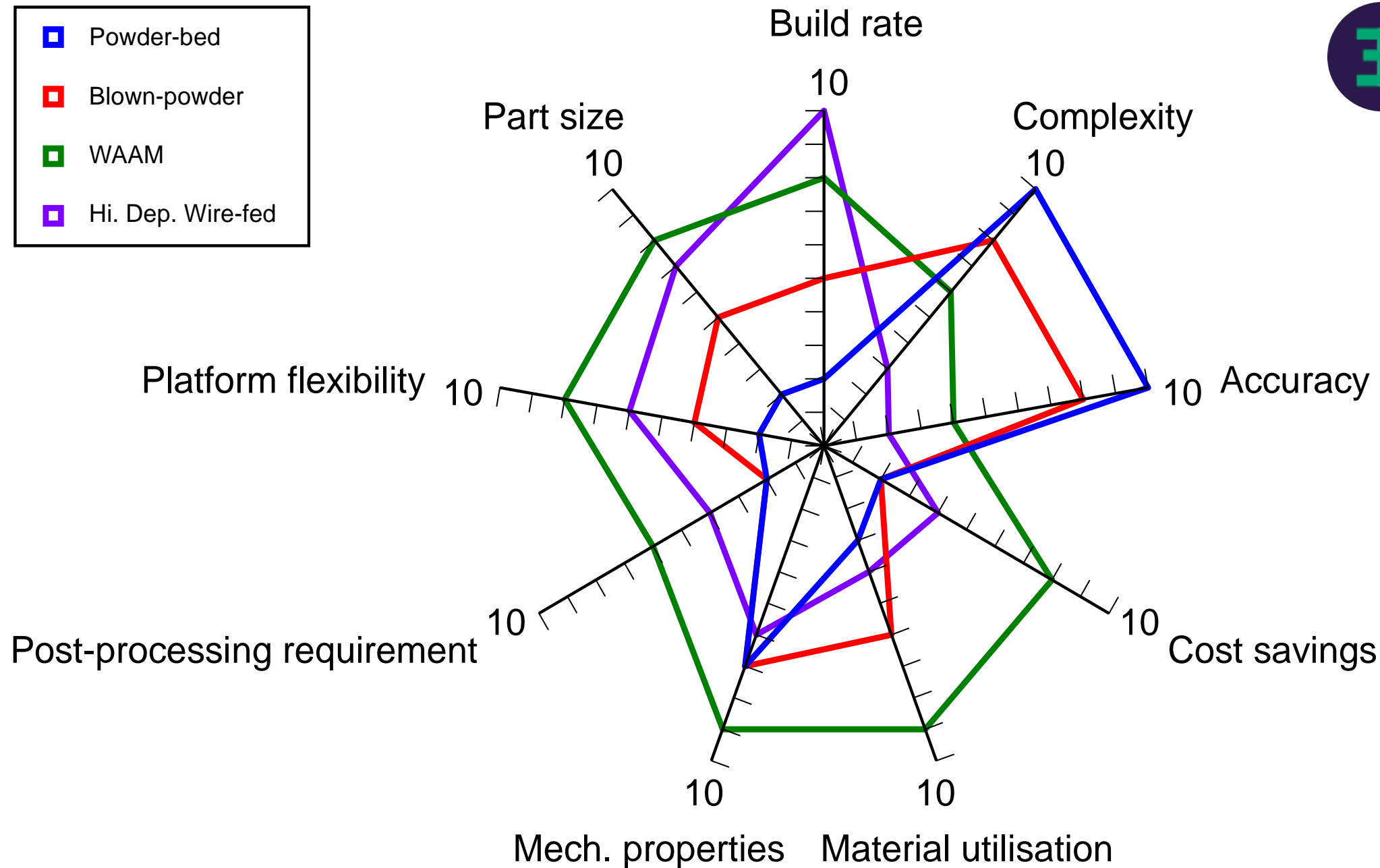
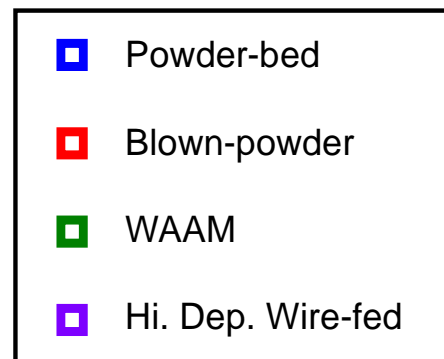
ADDITIVE MANUFACTURING TECHNOLOGIES





© Velleman







- material efficiency - light weight structures
- flow optimalization
- integration of functions
- mass customization

Where's the money?

For individuals

It's where the lack of skills is.

For companies in the AM Value Chain

It's "in between"

For companies outside the AM Value Chain

It's in the Competitive Advantage → Faster, lighter, better,





Thank you !

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Kris.binon@flam3d.org

+32 468 298 872

www.flam3d.org