



# Launch Event

November 7, 2017

# Forward-Looking Statements

*Certain statements made in this release that are not statements of historical or current facts are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the company to be materially different from historical results or from any future results or projections expressed or implied by such forward-looking statements. In many cases, forward looking statements can be identified by terms such as “believes,” “belief,” “expects,” “may,” “will,” “estimates,” “intends,” “anticipates” or “plans” or the negative of these terms or other comparable terminology. Forward-looking statements are based upon management’s beliefs, assumptions and current expectations and may include comments as to the company’s beliefs and expectations as to future events and trends affecting its business and are necessarily subject to uncertainties, many of which are outside the control of the company. The factors described under the headings “Forward-Looking Statements” and “Risk Factors” in the company’s periodic filings with the Securities and Exchange Commission, as well as other factors, could cause actual results to differ materially from those reflected or predicted in forward-looking statements. Although management believes that the expectations reflected in the forward-looking statements are reasonable, forward-looking statements are not, and should not be relied upon as a guarantee of future performance or results, nor will they necessarily prove to be accurate indications of the times at which such performance or results will be achieved. The forward-looking statements included are made only as the date of the statement. 3D Systems undertakes no obligation to update or review any forward-looking statements made by management or on its behalf, whether as a result of future developments, subsequent events or circumstances or otherwise.*



# Vyomesh Joshi (VJ)

## President and Chief Executive Officer

# Our Commitment



## ECOSYSTEM ENABLES WORKFLOW



## MAKING 3D PRODUCTION REAL



# Total Market Opportunity

- CEOs are under increased pressure to drive growth
- Accelerated product development cycles
- Keep costs down
- Reduce turnaround times
- Re-think how they manufacture goods
- Manufacturing footprint

## Opportunity

Estimated to grow to  
**\$20B** by 2020\*

HEALTHCARE

DENTAL

AUTOMOTIVE

CONSUMER  
GOODS

AEROSPACE

JEWELRY

*\*Ernst & Young's Global 3D Printing Report 2016, 3DP Maturity Model*

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# The Market

## TARGET VERTICALS 2017

### Prototyping Workflows

### Production Workflows

Rapid Prototyping  
Design Verification

Functional Prototyping  
(10s to 1000s parts)

Low Volume Production  
(10K to 25K parts)

Med Vol Production  
(100K – Million+ parts)

Healthcare  
2.9B TAM



Dental  
0.5B TAM



Automotive  
3.9B TAM



Durable Goods  
3.5B TAM



Aerospace  
1.5B TAM



Service Bureau  
3.6B TAM

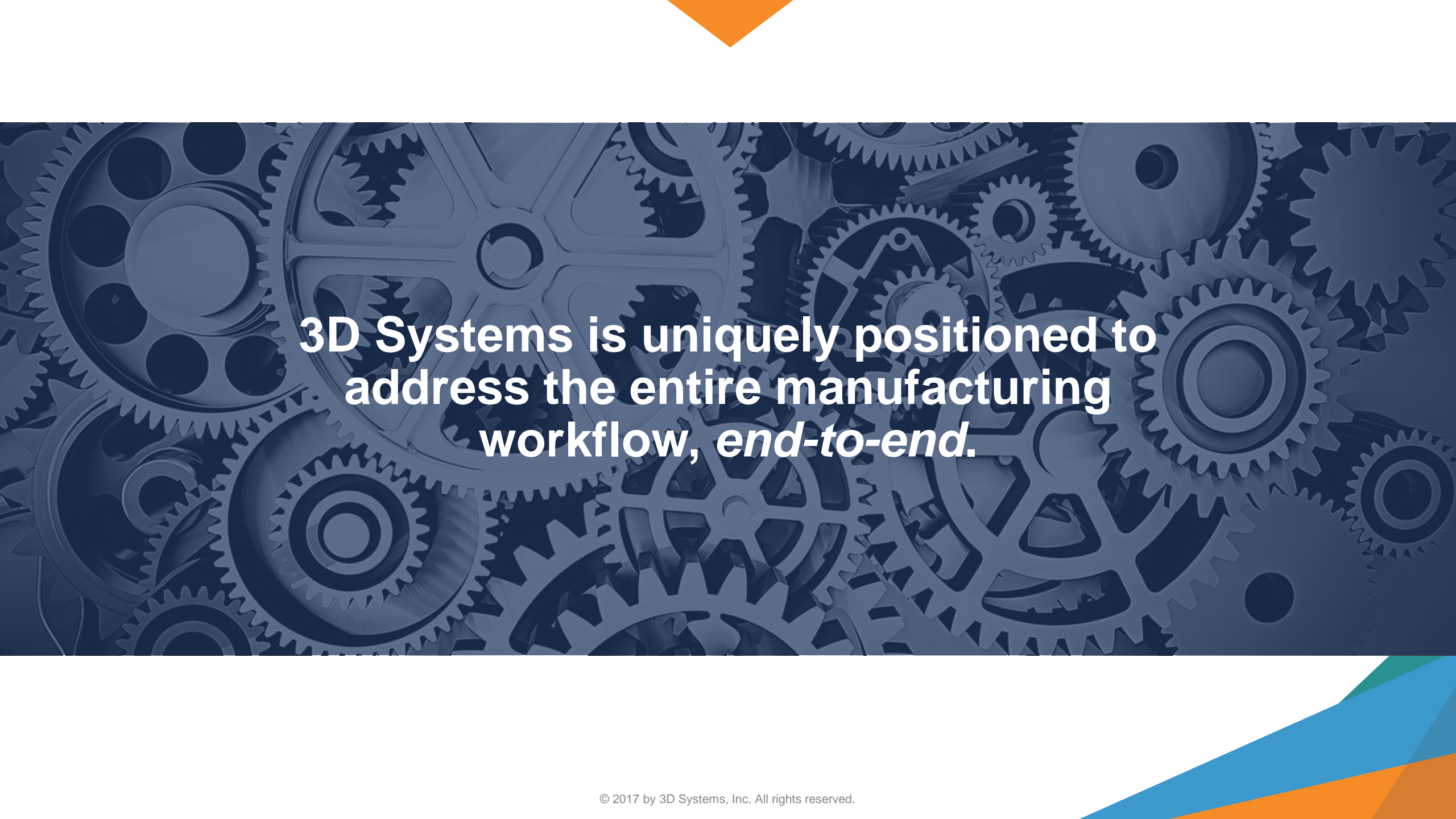


*\*Based on internal 3D Systems Estimates  
TAM reflects 2017 size of Market  
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# Customer Journey

	STRATEGIC DIRECTION	ORGANIZATION & PROCESSES	TECHNOLOGY ENABLEMENT
<b>4</b> Strategic applications across company	Embedded in company strategy C-level sponsorship	Embedded in relevant operational areas	Production locations Research centers
<b>3</b> Application in “champion” departments	Clear direction of application	“Champion” departments First cross-functional teams	Own systems Established collaborations
<b>2</b> Experimenting & testing	Invest, test and understand the technology	Test 3DP technology No structured process	Testing different technologies
<b>1</b> No experience	Leadership has no or low awareness	Evaluation and consideration	First considerations of form of application

*\*Ernst & Young's Global 3D Printing Report 2016, 3DP Maturity Model*



**3D Systems is uniquely positioned to  
address the entire manufacturing  
workflow, *end-to-end*.**



# Announcing The Next Generation of Additive Manufacturing

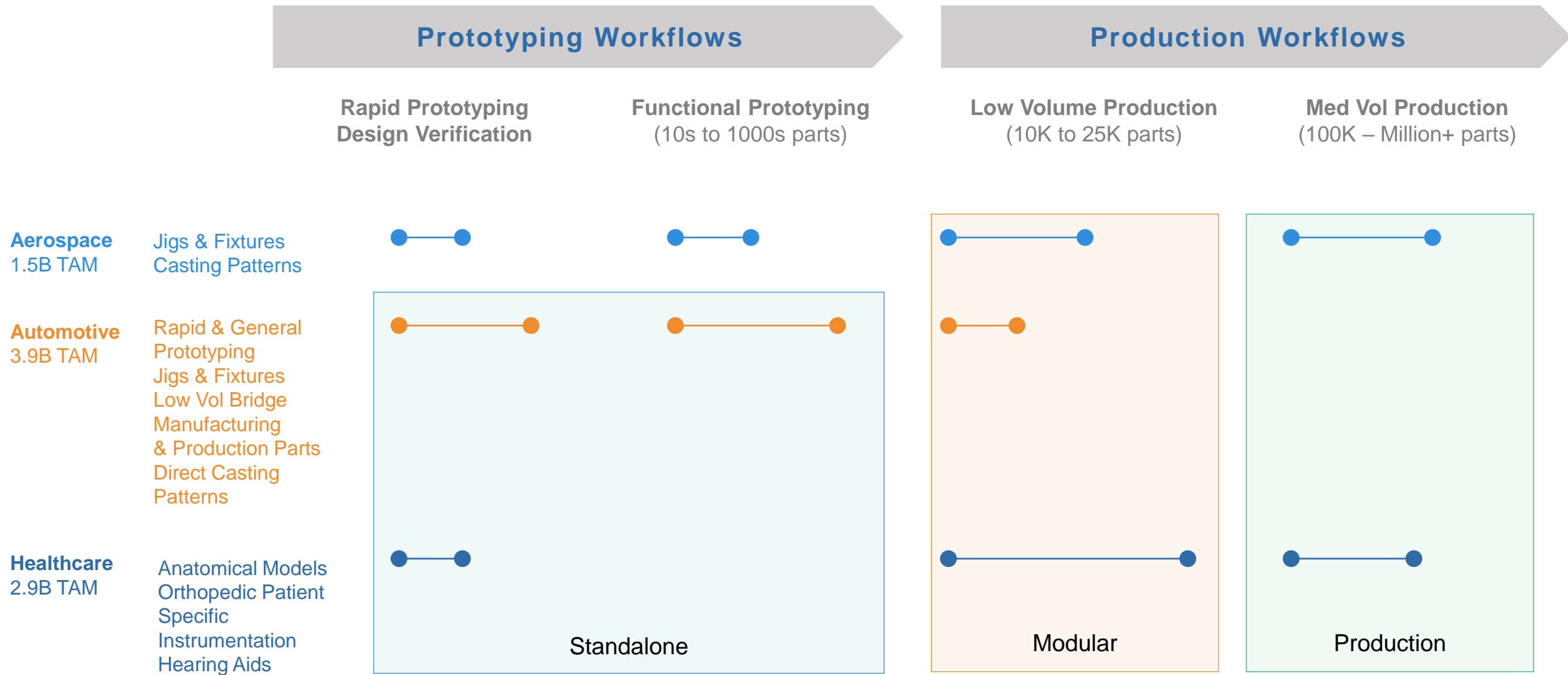
The background features a dark blue gradient. In the bottom right corner, there are several overlapping geometric shapes: a teal triangle pointing upwards, a light blue triangle pointing downwards, and an orange triangle pointing upwards, creating a modern, abstract design.

# Introducing Figure 4

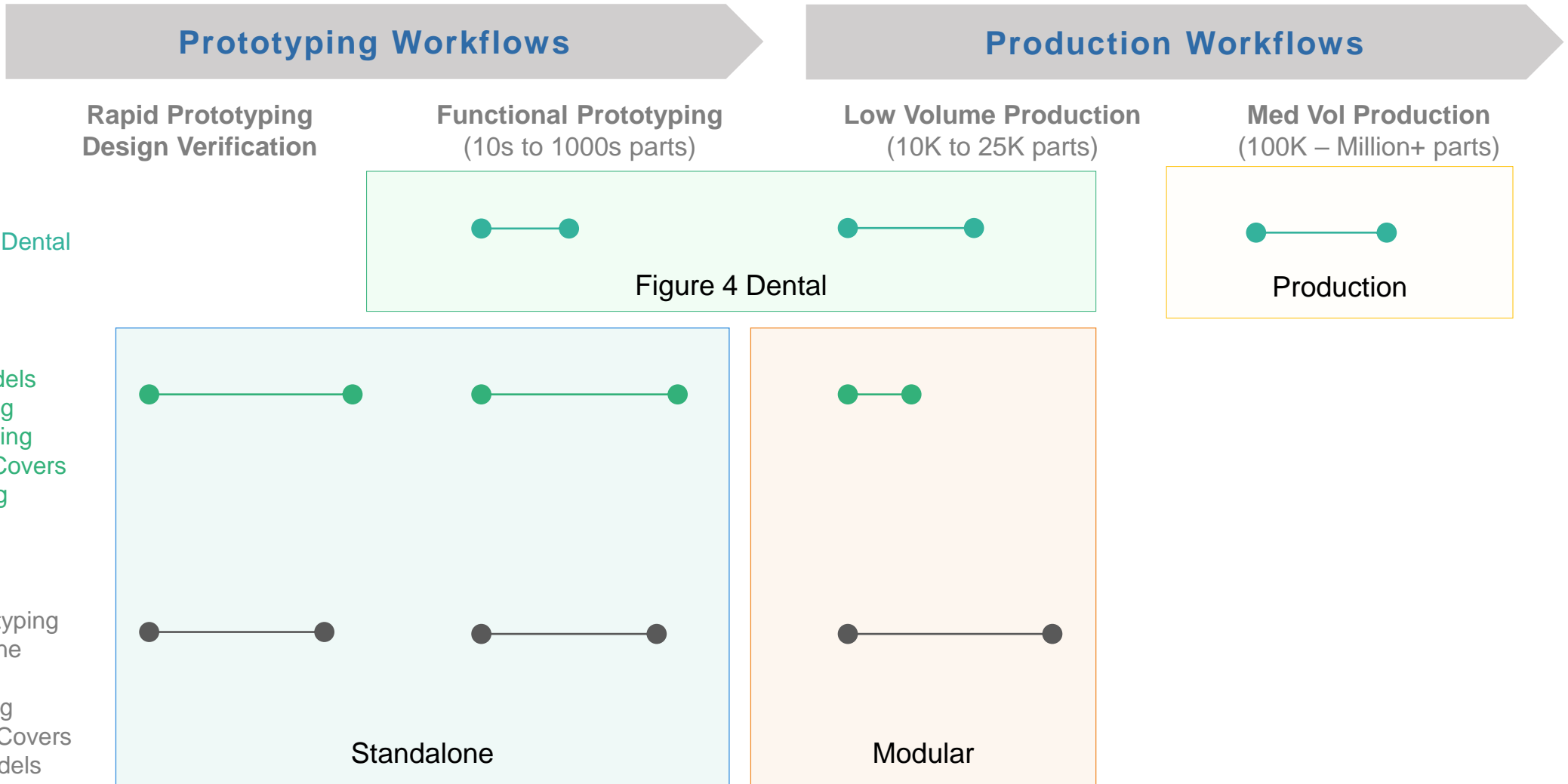
Next generation, modular,  
customizable, allowing scale  
from prototype to production  
with one material set



# Figure 4 TARGET VERTICALS



# Figure 4 TARGET VERTICALS

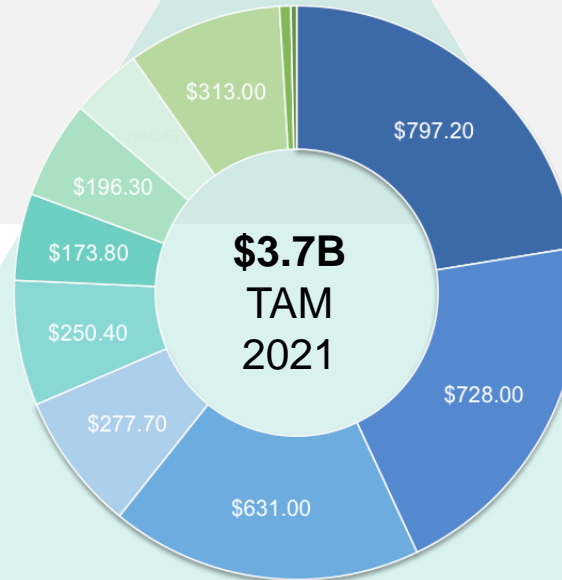


# Figure 4 Dental Market

**Materials**  
NextDent

*Revolutionizes traditional dental processes through high levels of productivity, durability, repeatability, and TCO.*

Dental Labs | 100,000 Worldwide | 8,000 US



**Workflow**

- 3Shape
- 3D Scanners
- 3D Connect



**Hardware**  
Figure 4 Dental

# Figure 4 Materials

*Innovation to create functional production parts at breakthrough total cost of operation*

- Functional production parts
- Launching 15 industrial and dental materials
- Use-case based custom materials
- 30-years experience in developing materials



Materials



Cartridges



Material Delivery

Same materials work across all models

# Figure 4

## Modular Scalable Production Platform

1<sup>st</sup>

Modular, scalable, production platform

1<sup>st</sup>

Functional, production parts, ~25K price point

1<sup>st</sup>

Post processing – inline, integrated and fully automated

1<sup>st</sup>

Up to 20% lower part cost and TCO

- Up to 15X faster throughput
- Connected platform powered by 3D Sprint and 3D Connect

Design Verification

Functional Prototyping

Bridge Manufacturing

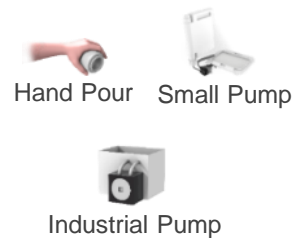
1MM+ Production Runs



Materials



Cartridges



Material Delivery



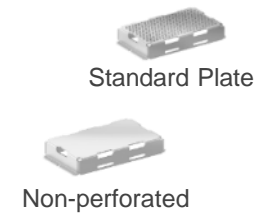
Print Engines



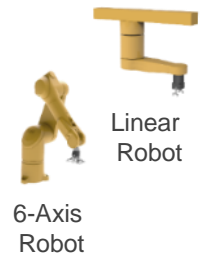
Imaging



Print Trays



Print Plates



Automation

# Figure 4 Products

## STANDALONE SOLUTIONS

Independent Printers | Affordable | Ease of Use | Adaptable



### Figure 4 Dental

**Dental Labs**

**Small & Large**

10+ Dental use cases

Up to 10X lower part cost

Up to 5X faster

### Figure 4 Standalone

**Small Design Shops | OEMs**

**Smaller Service Providers**

Affordable

Functional prototypes

Ideal in emerging geographies

## FACTORY SOLUTIONS

Integrated Modules | Connected | Full Automation | Process Control



### Figure 4 Modular

**Service Providers**

**Medium OEMs**

Flexible configuration

Low volume production

Scales with demand

### Figure 4 Production

**OEMs with High Volume**

**Production Applications**

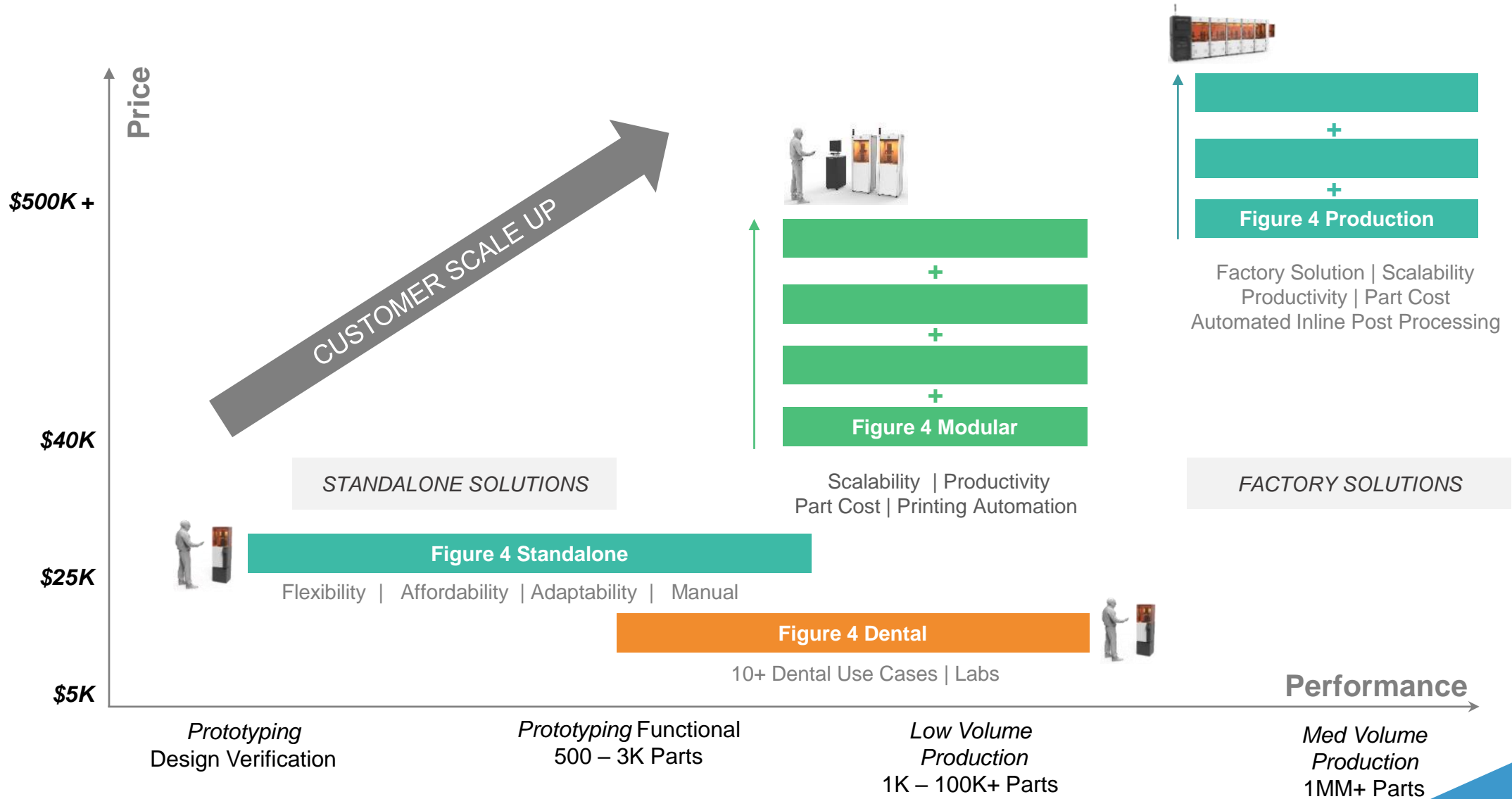
Customizable

1MM+ parts/year

Inline post processing



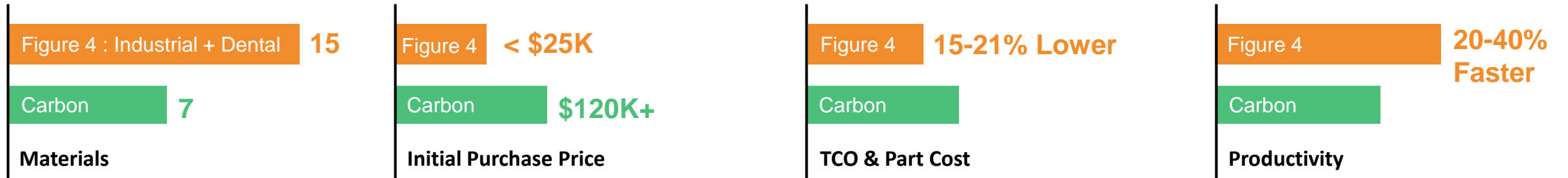
# Customers Grow with Us



# Figure 4

## Standalone Wins vs. Carbon

### Wins on Materials - TCO - Productivity - Initial Investment



### Provides customer choice to ramp-up based on volume



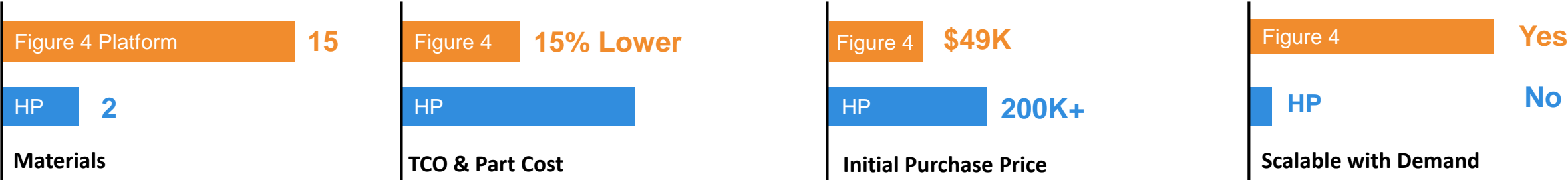
### Figure 4 vs. Carbon

Functional parts under \$25K | Scalable platform | Inline post processing | Broader use cases

# Figure 4

## Modular Wins vs. HP

### Wins on Materials - TCO - Productivity - Initial Investment



### Figure 4 provides customer choice to ramp-up based on volume



### Figure 4 Modular vs. HP MFJ

Functional parts under \$50K | Scalable Platform | Ramps to Factory Production | Inline post processing



# **Phil Schultz**

## **SVP, General Manager, On Demand Solutions and Plastics**



# Introducing MJP Engineering-Grade Materials

# New MJP Materials & Capabilities



**VisiJet® M2G-CL  
(Armor)**

Engineering material with excellent impact strength in a rigid ABS-like plastic



**VisiJet® M2G-DU  
(ProFlex)**

Engineering material with superior durability and flexibility in a semi-rigid PP-like plastic



**VisiJet® M2R-GRY**

High contrast material w/ improved visibility of fine detail



**VisiJet® M2R-CL/WT and  
CR-CL/WT**

Class VI capable materials ideal for medical applications



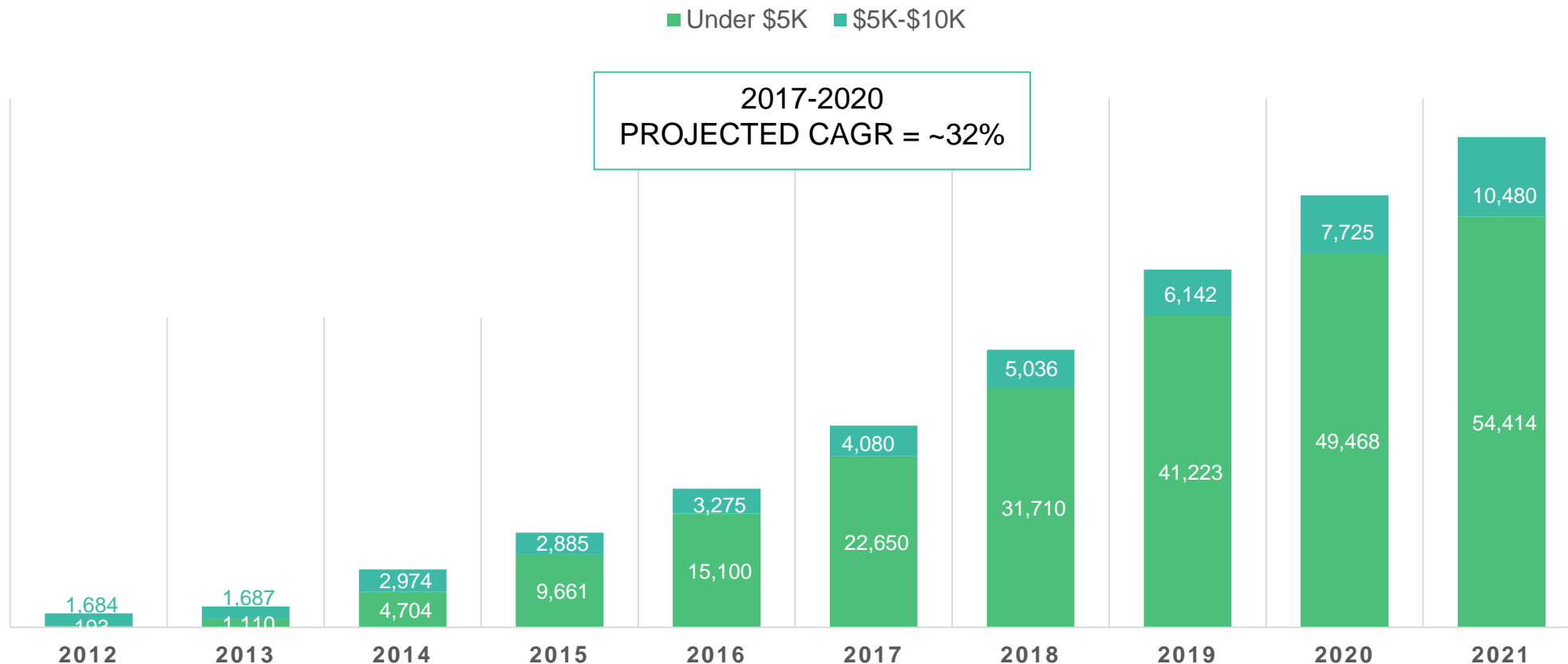
# Introducing FabPro™ 1000



# DLP Desktop

Is one of the fastest growing categories in Additive

## DLP PROFESSIONAL UNITS UNDER \$10K



Source: Context Data



# FabPro™ 1000

An affordable, industrial desktop 3D printer solution  
**Seeds the market for Figure 4 adoption in the future**

Small Job Shops | Design Shops  
R&D departments | Engineers |  
Jewelry Artisans & Fabricators  
**Emerging Geographies**

**ALL NEW**

FabPro™ 1000  
at \$4990



## Materials

FUNCTIONAL PROTOTYPING  
TOUGH | ELASTOMER  
SURGICAL GUIDE | CASTABLE  
PROPRIETARY | PARTNERSHIPS



# Functional Materials

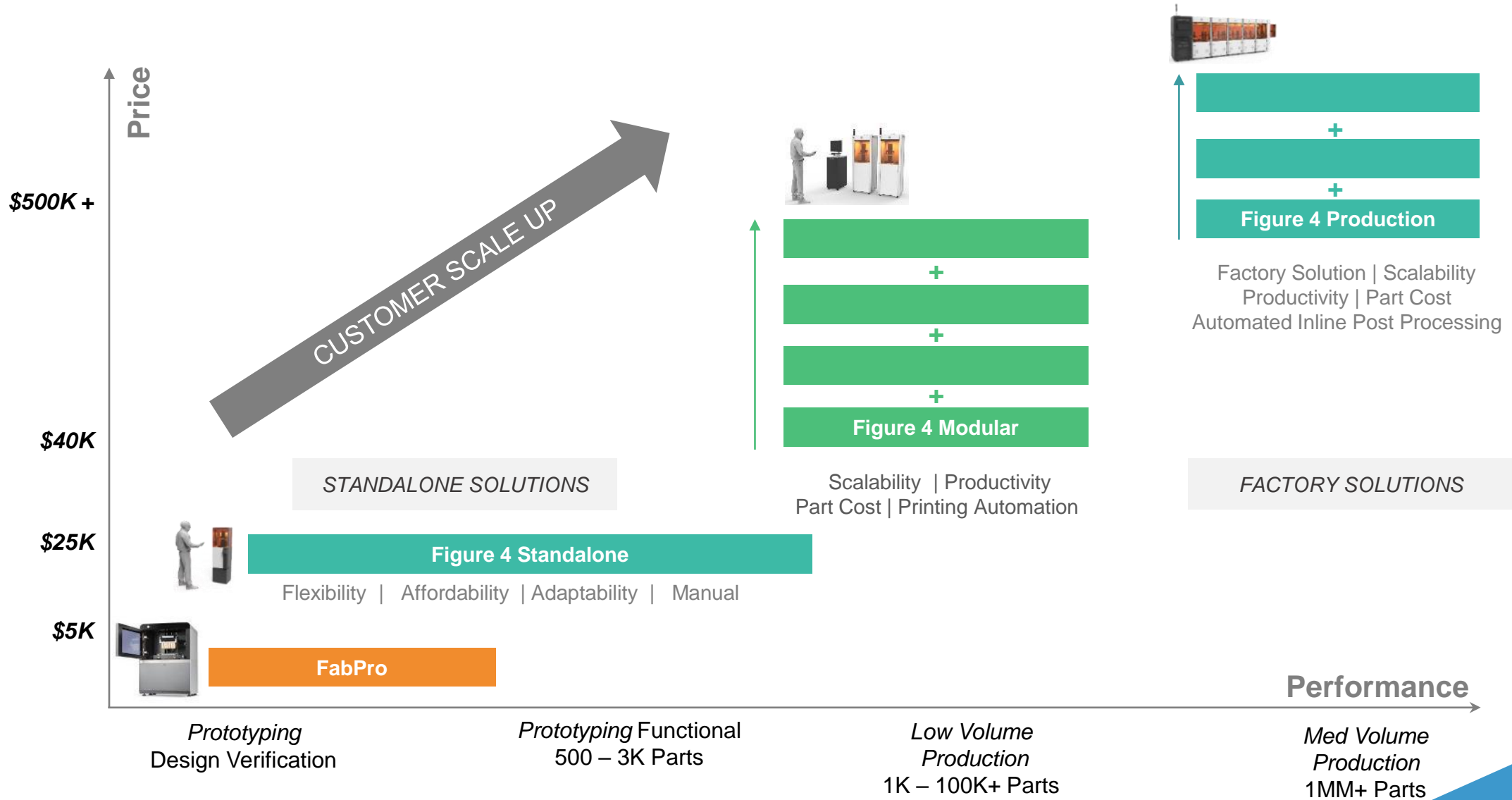
- Functional parts for 5K investment
- Directly leverage Figure 4 Development
- Material Design Center leadership
- Launching a range of Materials
- Use case specific, functional materials
- Fast, Tough, and Castable cover majority of use cases
- Materials portfolio will continue to expand post-launch



## Materials Made for Quality

From tough engineering plastics to castable resins, the FabPro 1000 materials are designed for accuracy and quality

# Customers Grow with Us





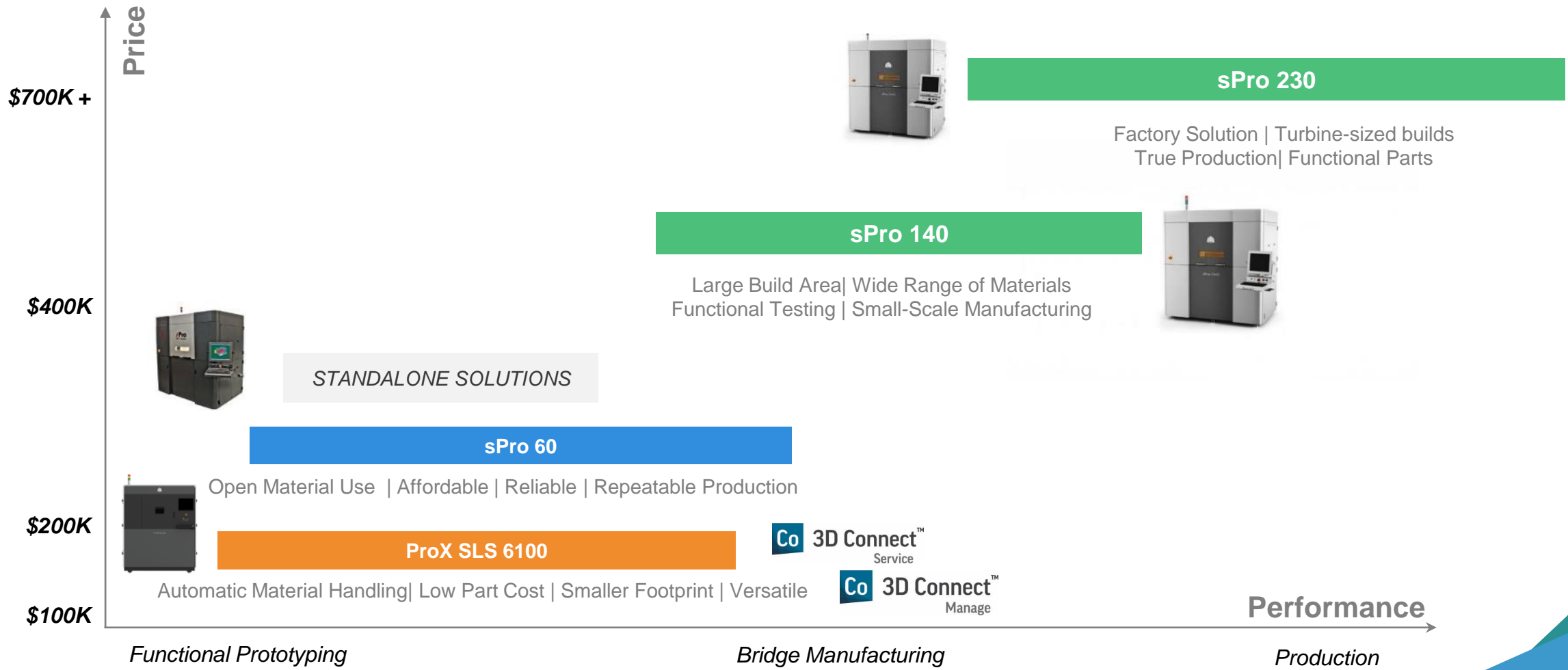
# Introducing ProX SLS 6100

For Small and Large Functional Parts



# SLS

## From Prototyping to Full Production



# Broad Range of Production Materials

## Overall Value Proposition

- Durable Nylon
- Broad set of 11 materials
- Faster custom application development by Material Design Center with 30 years of proven R&D expertise
- Repeatability Maximizes Small-scale Manufacturing
- Optimized recycle rates lower part cost
- Biocompatible materials for medical use
- Food-safe storage and handling

## Customer Proven Materials



Glass-Filled Nylon

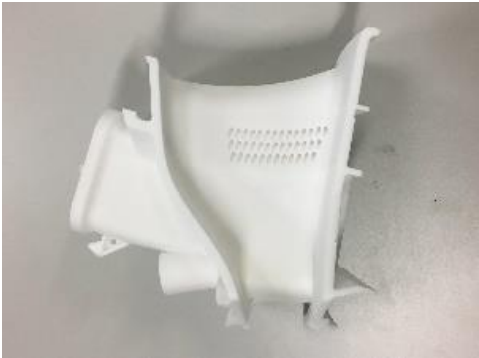


Mineral-Filled Nylon



Nylon 12

# New SLS Materials & Capabilities



**DuraForm® FR  
1200**

Flame retardant ideal for aerospace and durable good applications compliant with federal aviation regulation 25.853 - compartment interiors



**DuraForm® AF+**

Aluminum filled to yield a metallic finish ideal for consumer products and automotive applications



**DuraForm® EX Black**

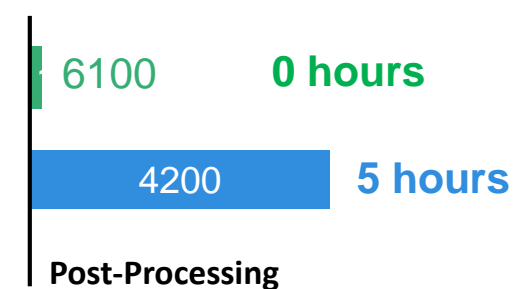
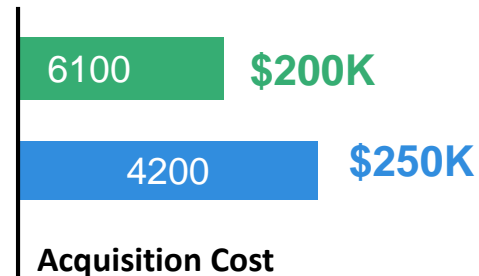
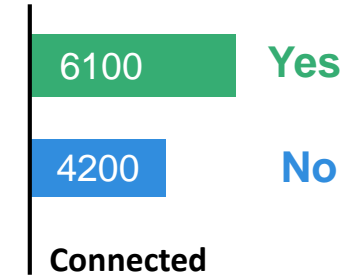
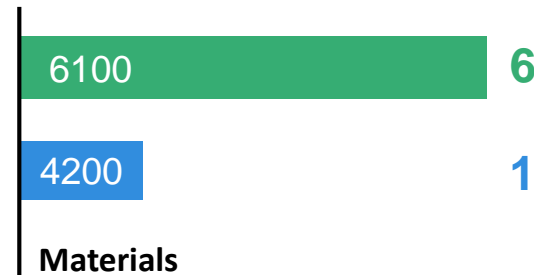
High impact resistant nylon 11 ideal for consumer products and automotive applications excellent wear properties

# ProX SLS 6100 Wins vs. HP

## ALL NEW

### ProX SLS 6100 vs. HP MJF 4200

- Higher material count
- Larger build volume: more parts for every build
- 6 Industrial Materials vs. 1 from HP
- Large size printer format available
- 5 hour dyeing of parts not required
- Superior dimensional accuracy across small and large parts
- Superior part surface finish
- 3D Sprint provides enhanced capabilities
- 3D Connect provides full connectivity
- FDA certified food safe
- FAR certified for Aerospace







# **Kevin McAlea**

## **EVP, General Manager, Metals and Healthcare**



# Introducing Precision Metals Platforms



# DMP 8500 Factory Solution

## TARGET VERTICALS

### Development Workflows

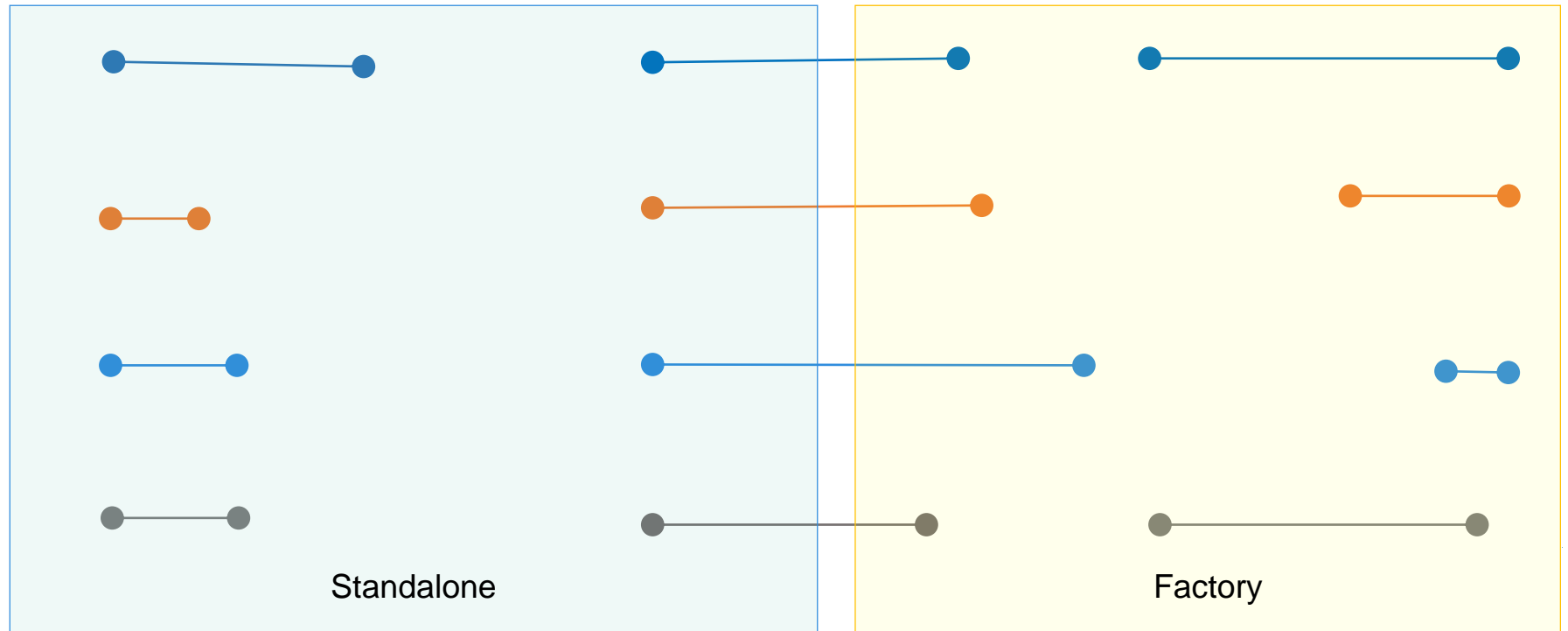
### Production Workflows

R & D

Low Volume Production  
(1 to 100 parts\*)

Med Vol Production  
(100 – 20,000 parts\*)

- Aerospace**  
444MM TAM  
Brackets, nozzles, RF Filters, heat exchangers
- Healthcare**  
550MM TAM  
Orthopedic implants  
Customized implants  
Surgical Instruments
- Industrial**  
330MM TAM  
Machinery components, gas burners, heat exchangers
- Automotive**  
187MM TAM  
Exhausts, manifolds, heat exchangers



\* dependent on part size

# Precision Metal Printing Solutions

## STANDALONE SOLUTIONS

Independent Printers | For R&D and Part Production



### DMP 100 and 200

**Education**

**Dental**

Finest Detail

Best surfaces

Entry level DMP

### DMP 320

**Healthcare | Aerospace**

**Industrial/contractors**

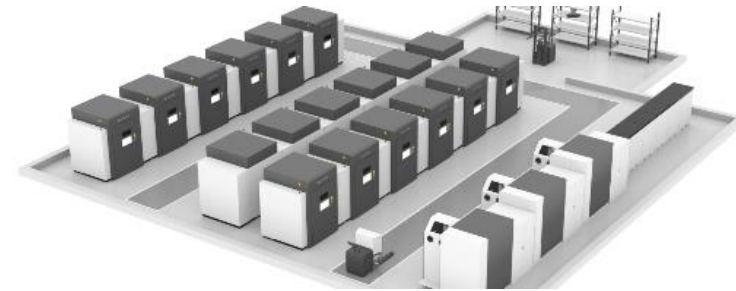
Robust printer

Repeatable Quality

Low TCO

## FACTORY SOLUTIONS

Scalable | High Level of Automation | Fully integrated modules



### DMP 8500 Factory Solution

**OEMs**

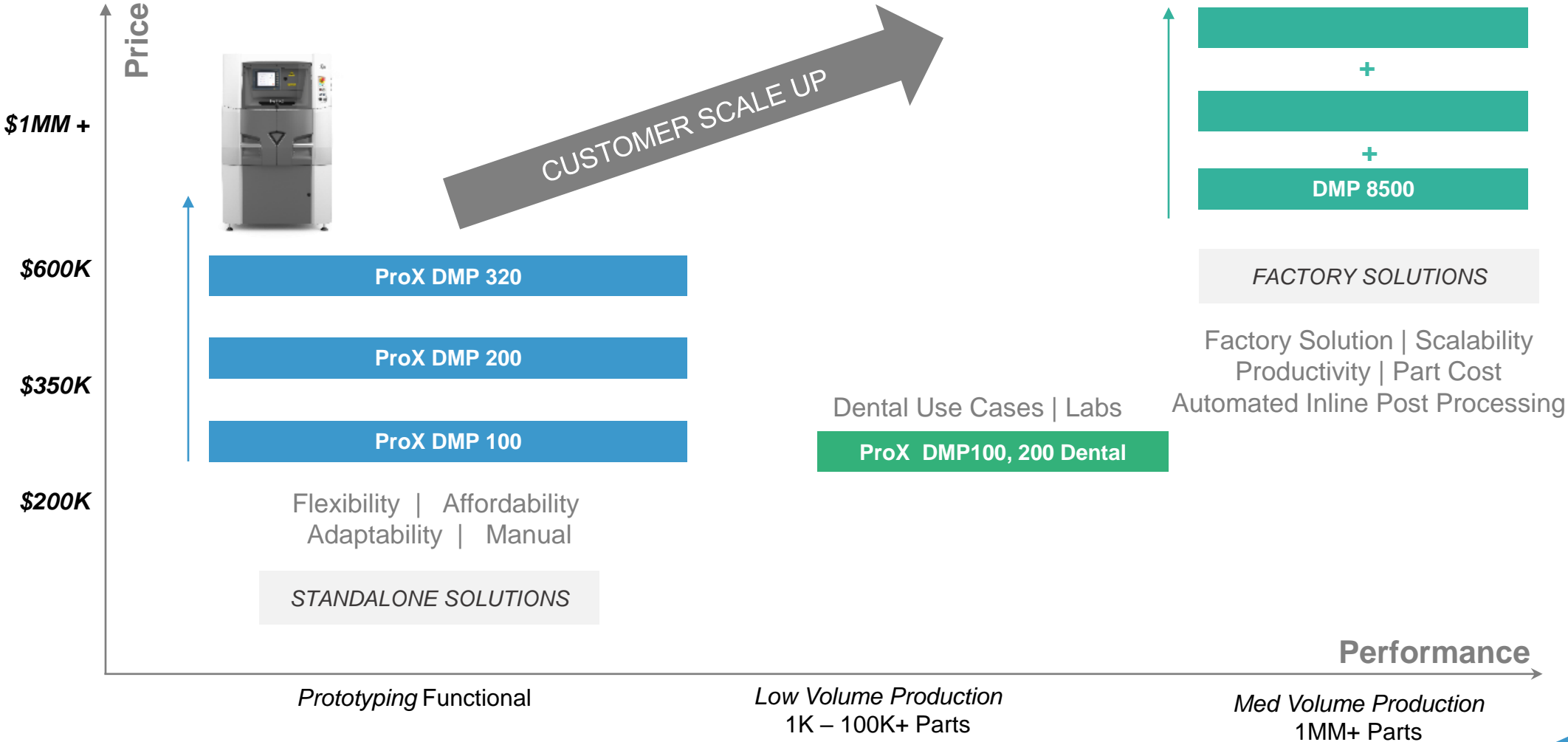
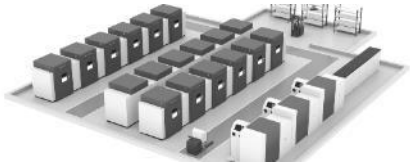
**Large part contractors**

Medium volume production

Largest part diameter in the industry

Repeatable quality, high productivity, low TCO

# Customers Grow with Us



ALL NEW

# DMP 8500

## Scalable Factory Solutions

Modular, configurable, scalable factory setup

**1st** With 500x500x500 mm largest diameter in the industry

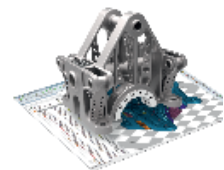
**1st** Seamless large parts

Uniform, repeatable quality

Low TCO and low per part cost

High Productivity

**OEMs and large part contractors looking for:**  
Uniform repeatability, part quality  
Affordable part cost/TCO  
Scalability, including managing peaks  
Service and Support, including application guidance  
Process monitoring and traceability  
Factory 4.0 – data-flow/logging/monitoring



Xp 3DXpert™



Transport module with Removable Print Module (RPM)



Printer Module



Powder Management Unit (PMU) with Depowdering Module



Parking Module



Broad choice in LaserForm materials with extensively developed parameters

SOFTWARE

HARDWARE MODULES

MATERIALS

# Expanding Our Suite of Workflow Software

```
def operation == "MIRROR_Y":
    mirror_mod.use_x = False
    mirror_mod.use_y = True
    mirror_mod.use_z = False
elif operation == "MIRROR_Z":
    mirror_mod.use_x = False
    mirror_mod.use_y = False
    mirror_mod.use_z = True

#selection at the end -add back the deselected mirror modifier
mirror_ob.select= 1
modifier_ob.select=1
bpy.context.scene.objects.active = modifier_ob
print("Selected" + str(modifier_ob)) # modifier ob
#mirror_ob.select = 0
#me = bpy.context.selected_objects[0]
#me.data.objects[me.name] = mirror_ob
```

# 3D Systems Software Strategy

1

From physical  
to digital

2

Build on  
strategic  
partnerships

3

Enable customers to  
get maximum results  
from their 3D  
Systems printer



DIGITIZE



DESIGN



SIMULATE



MANUFACTURE



INSPECT



MANAGE



# 3D Systems Software for Workflow



Geomagic for Solidworks, Wrap



Geomagic Design X



Geomagic Freeform



Cimatron

*Subtractive*



GibbsCAM



3DXpert

*Additive*



3D Sprint



Geomagic Control X



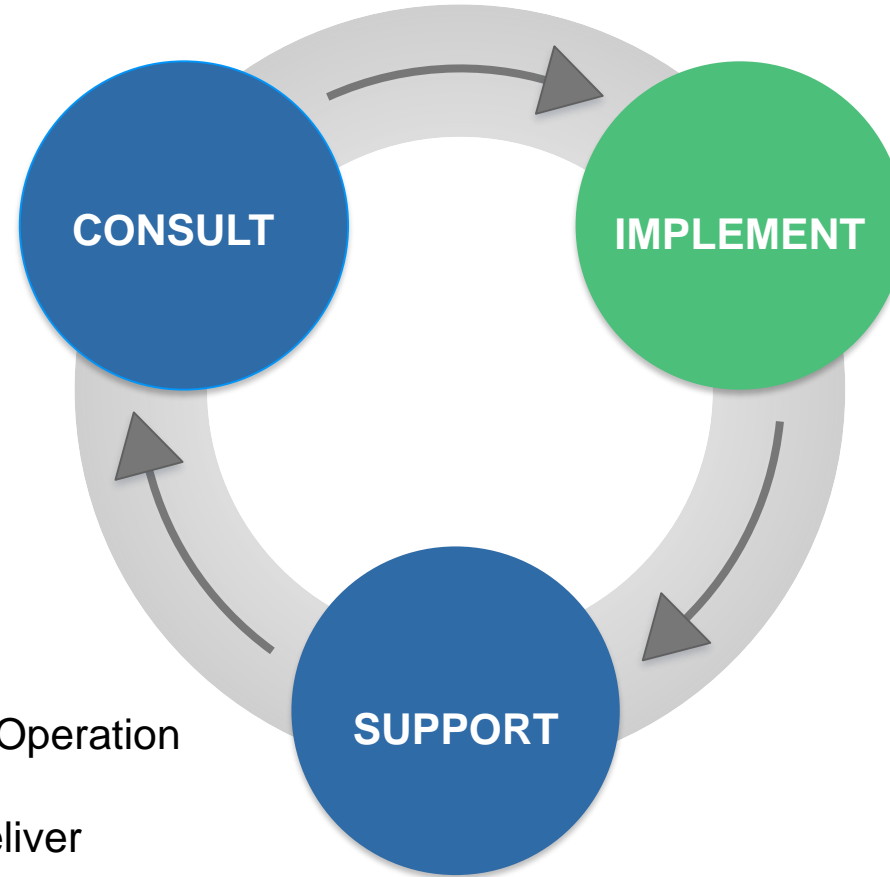
3D Connect



# Professional Services

## Implementing Additive Manufacturing

- Build the business case: Additive Manufacturing primer and advanced consultation
- Specific 3D printing application consulting



- Optimize parts design
- Assess and streamline manufacturing workflows
- Facility review and certification support

- Optimize Total Cost of Operation
- 3D Connect Services
- Promise uptime and deliver preventative measures
- Production assurance

# Cloud-Based Services



## Fleet Monitoring

- Enables customers to see the status of their printer in real time
- Enables email and text alerts with their build or printer
- Creates analytics on uptime, usage, consumable use, health of the lasers/print heads etc.

**ALL NEW**



## Remote Diagnostic Tools

- Creates the ability for service to see what the problem is prior to going on site
- Automatically creates a service ticket
- Enable the ability to have the right spare parts ordered and on site prior to the tech arriving

**ALL NEW**

# Customer Engagement Model

## Product Lifecycle

Design

Prototype

Pilot Runs

Production Runs

Customer  
Use Cases

Materials

Hardware &  
Software  
Technology

Pre-Sales  
Application  
Engineering

Propose  
Solution

Uptime  
Based on  
Predictive  
Support



# Herbert Koeck

## SVP and General Manager, Go to Market



# Go To Market

# Customer needs → different sales motions

## Route 1: Standalone solutions

- Sales cycles (<6 months)
- Prototyping environments
- Customer in early stages of AM
- Limited utilization
- Testing environments
- Regional (local)
- Customer making purchase

## Route 2: Factory solutions

- Mid- to long-term (6-18 months)
- A solution sale - Services, printers, materials, software, application and certification knowledge
- Seller must have deep understanding of industry and customer use case
  - Healthcare, Aerospace, Dental ...
- High degree of automation needs
- Backup and over-demand services part of the offering
- 24x7 operations
- International needs (across countries, departments)

# Route to markets based on customer needs

## Route 1: Standalone solutions

- Balance between direct sales and resellers, depending on product
- Ability in financing the deal
- Ability to support the customer
- Ability to buy and maintain demo units
- Application know-how
- Channel partners add value in certain geographies, certain language skills

## Route 2: Factory solutions

- Mainly direct supplier – customer relationship
- Skills and capabilities to design solution for customers
- Infrastructure needed to demonstrate and proof concepts
- Customer Innovation Centers
- Certified production centers
- Application know-how around solutions, services, certifications and how to operate systems
- Ability to offer backup and over-demand services (On Demand Manufacturing)
- Service delivery across continents (Customer operating multiple sites)





# Q&A



**Thank You!**