2019

ADDITIVE MANUFACTURING

# SALARY SURVEY

BY

ALEXANDER DANIELS GLOBAL

# TABLE OF CONTENTS

# EXECUTIVE SUMMARY

2019 was an interesting, exciting and maybe turbulent year for some companies in Additive Manufacturing. For Alexander Daniels Global, it was quite exciting. We launched a new office in Berlin, headed up by Iulia Oprea. Over the past four years, we have learned the importance of local relationships within the AM industry; having someone who speaks German, lives in Germany and can spend time with the clients based in the region proved important. I think this is something other companies in the 3D Printing industry have come to understand as well. We see this quite prominently as expanding machine OEM's expand their local sales-, applications- and service teams, especially within Europe.

2019 might go down as the year powder bed fusion started to suffer and feel the effects of the rise of metal binder jetting. Anecdotally, I spoke to a lot of powder bed fusion OEM's who discussed challenges in sales. There was also extensive restructuring happening within companies like Oerlikon, a major investor in powder bed fusion, and Renishaw, who closed one of their sites in the UK.

2019 was a significant year for awareness of environmental sustainability in manufacturing, across the world as well as in additive. It was certainly a hot topic at the 2019 Formnext exhibition. As I look into 2020, I think sustainability in additive will become an even more widely discussed topic. I believe it is a huge opportunity for additive to position itself as a technology that can help major global OEM's reach their sustainability goals.

This is our fourth edition of the Salary Survey and every year it provides different insights into what is happening in the industry. For the first time we see that in some disciplines and for some levels, the average salaries have gone down. However, this shouldn't be the catalyst for companies to think they should lower the salaries they offer. Actually, what we see is that the expansion of the workforce means that there is an increasing number of professionals entering the industry at lower levels, in more junior roles. These professionals then progress through into more experienced level roles, which brings down the average overall. However, we have still seen some big increases in maximum salaries in areas where talent remains in short supply and is highly sought after.

It is always a pleasure to release this report, and every year we are thankful to the companies and individuals who share their information with us. I hope you enjoy the report and we always welcome the opportunity to discuss it in person with companies who are expanding or have talent requirements.

Yours Faithfully

Nick Pearce, Founder & Director

# INTRODUCTION TO THE SURVEY

Welcome! You are now reading the 2019 Worldwide Additive Manufacturing Salary Survey provided by Alexander Daniels Global.

This is our fourth year providing the additive manufacturing and 3D printing industry with the most comprehensive salary study in the industry. The past editions have received impressive feedback and have proved instrumental to understanding salary and hiring trends in the AM industry - two areas that are rarely researched or analysed.

This report was created with the support of the AM industry and is based on survey responds from AM employers and AM professionals across geographical locations and different stages of the AM value chain.

**This report seeks to answer the burning questions both AM employers and professionals in the AM industry may have. It provides key insights into additive manufacturing specific trends, salary, hiring intentions, and in-demand skills and roles.**

**This report will provide information across:**

- Six key disciplines: R&D and Engineering, Sales, Service, Applications & Consulting, Marketing and Software;
- Remuneration at various levels of seniority; and
- Across three key regions: EMEA, APAC and US.

**Employer questions answered by the report:**

- Is the remuneration package offered by my company aligned with the AM industry standards?
- What is the package that we should offer to 3D printing professionals of different disciplines to attract them to our organization?
- What is the staff budget that we need in order to expand our business to another country?

**AM professionals' questions answered by the report:**

- What is the salary that professionals are receiving in my field in different regions?
- What skills should I develop to advance my career?
- How will my salary increase with more experience in AM?
- Am I currently paid according to my market value?

# 2019 IN ADDITIVE MANUFACTURING

**JANUARY**

- Renishaw opens new additive manufacturing Solutions Centres in Europe
- Cellink awarded $1M in EU funding to develop 3D bioprinter ink

**FEBRUARY**

- Filamentive announces 100% recycled 3D printer filament made from PET plastic bottles
- Airbus selected Ultimaker to supply 3D printers, software and materials to their European facilities

**MARCH**

- GE Additive is chosen by GA-ASI (General Atomics Aeronautical Systems Inc.) to accelerate additive growth
- Markforged raises $82 million in funding for its industrial 3D printers
- Sharebot launches compact metal 3D printer

**APRIL**

- Fast Radius raises $48M to expand platform for production-grade additive manufacturing
- Stratasys enters SLA 3D printing with its V650 machine launch

**MAY**

- Siemens and HP deepens alliance with new integrated additive manufacturing solutions, incorporating new systems and software
- Jabil partners with Renault F1 team to manufacture F1 car parts with additive
- Continental opens 3D Printing center to advance AM in automotive sector

**JUNE**

- HP opens new 150,000 square foot 3D Printing Center of Excellence in Barcelona
- 3D Printing unicorn Carbon receives series E funding, bringing in $260 million.
- Norsk Titanium additive manufacturing recognized in Boeing's Material Allowables program

**JULY**

- Airbus and Sigma Labs partner to qualify metal 3D printing for serial production in the aerospace industry

**AUGUST**

- Thyssenkrupp receives first approval certificate to produce maritime parts with AM
- Samsung unveiled its Galaxy Note 10 smartphones equipped with 3D scanning capabilities

**SEPTEMBER**

- Evonik leads funding round for Chinese 3D Printing medical start-up
- nTopology establishes first European office in Germany
- First AM center in the Middle East announced by the Sharjah Research, Technology and Innovation Park
- GE opens campus in Germany, serving as the new headquarters for Concept Laser.

**OCTOBER**

- Rize achieves UL 2904 GREENGUARD certification and becomes the first 3D printing company to adhere to these rigorous standards.
- GKN Powder Metallurgy acquires Forecast 3D to expand global AM footprint

**NOVEMBER**

- BASF acquires Sculpteo and solidifies itself as a major player in AM.
- Meltio reveals their flagship printer
- EOS debuts their shared modules periphery solution for AM in production
- Siemens launches the Siemens Additive Manufacturing Network allowing customers and suppliers to connect for their production needs.

**DECEMBER**

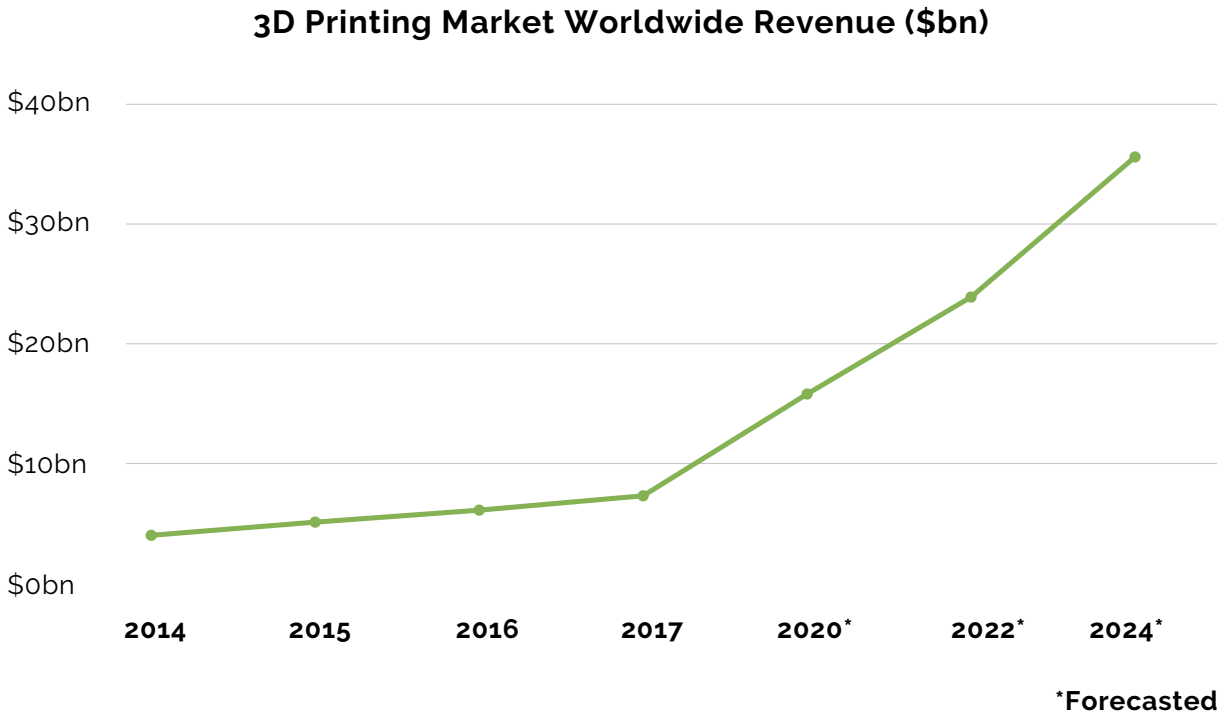
- Stratasys appoints new CEO, Yoav Zeif
- Wipro IISc Develops India's First Metal 3D Printing Machine
- Henkel and Fortify join forces to enable high-performance applications in 3D printing

# MARKET OVERVIEW

To understand the analyses regarding salary benchmark, the market trends, and other insights, it is crucial to first understand the general 3D printing market, and the underlying factors driving the trends.

The demand for talented professionals grows every year as a result of the continuous developments and growth of the additive manufacturing industry as a whole.

The graph below shows the actual and forecasted worldwide market revenue of the additive manufacturing / 3D printing industry in billion US dollars (Wohlers Associates, 2019).




The graph above shows a clear growth trajectory for the industry. However, looking back on 2019, it can be argued that it has been a challenging year for some parts of the industry. The large powder bed fusion manufacturers have arguably found the second half of the year challenging from a machine sales standpoint. The proliferation of binder jetting on the metal side is both an opportunity for the industry, opening up for new applications, but it is also likely holding back some sales decisions in laser powder bed fusion. According to Wohlers Report (2019), the revenue from metal was reported to have grown by 41.9% in 2018, indicating this shift in focus.

For the first time in the last five years, we may start to see a slowdown in the additive manufacturing industry; not a slow down in terms of negative growth, but we will likely not see 30% year on year growth as there has been previously.

# POWERING THE GROWTH

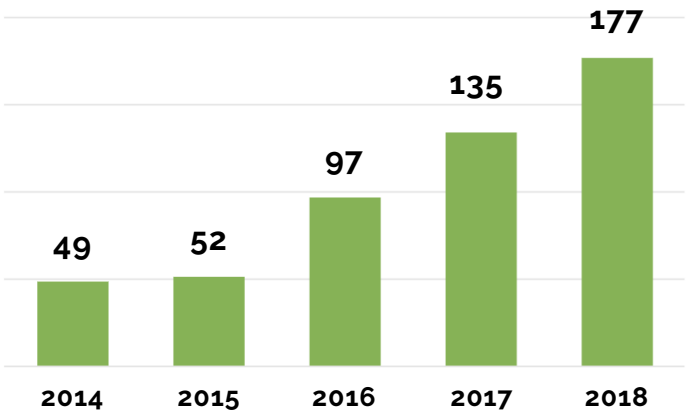
Nevertheless, the market revenue graph indicates a predicted growth across the overall AM market. And the growth is likely powered by the many new players entering the market, new collaborations, hundreds of millions dollars invested and the increase in adoption of the additive manufacturing technology.

### NEW PLAYERS IN THE MARKET

One area of additive manufacturing that has not slowed down is the growth of new start-ups. There are new businesses coming to market with variations of existing technology, even on the FDM, SLA and SLS sides. Additionally, new technologies are starting to emerge within the market.

The actual and predicted growth is largely powered by a dramatic rise in the amount of new companies entering the industry. Throughout 2018, the amount of companies producing and selling industrial AM systems increased to a significant 177, equal to a 31% increase (Wohlers Associates, 2019).

**Number of 3D Printing Manufacturers**




### COLLABORATIONS

Collaborations within the AM industry are also increasing in an effort to grow the industry collectively and increase the adoption. One example is the collaboration between Airbus and Sigma Labs who are partnering to qualify metal 3D printing for serial production in the aerospace industry. Another is the alliance between Siemens and HP, working on integrated additive manufacturing solutions and incorporating new systems and software.

### INVESTMENTS

Funding and investments have been an important news theme of 2019, as can also be read of the '2019 in Additive Manufacturing' timeline above. One example is 3D Printing unicorn Carbon receiving series E funding in June 2019, bringing in $260 million.

# EFFECTS OF THE GROWTH IN AMOUNT OF COMPANIES

### CONSOLIDATION OF BUSINESSES

There is a challenge lying ahead for some of the new and existing businesses, where the demand levels for their machines and technology are not growing at the same speed as the growth of manufacturers is. Because of this, there is likely going to be an increase in acquisitions and consolidations of businesses in additive.

Acquisitions in additive is also a means for companies to solidify their positions as serious players in additive – for example BASF's acquisition of Sculpteo, or GKN Powder Metallurgy's acquisition of Forecast 3D to expand their global AM footprint.

### TALENT SHORTAGE

The increasing amount of new companies entering the industry also means that these companies demand new employees. Moreover, existing firms are internationalizing their businesses and need professionals in the new regions they are establishing. All this growth requires new professionals to enter the industry, providing a significant challenge for AM employers, as there is a lack of qualified professionals.

**4 major reasons for the lack of qualified professionals in the AM industry are:**

1. The industry and the demand for talent is growing at a faster rate than the number of new professionals entering the field with specific training in AM.
2. The AM industry has an unemployment rate very close to zero
3. The AM industry is increasingly competing with other industry 4.0 technologies, both for talent and for adoption
4. Though there has been growth in the training and education offerings focused on additive, the supply is still not meeting the demands of the industry, which causes the skills gap to widen.

# MARKET TRENDS

### SOFTWARE INCREASINGLY CENTRAL FOR INDUSTRIALISATION

With the AM shifting towards serial production and industrialisation, software becomes increasingly critical across the AM workflow.

Firstly, the software is becoming more advanced as it needs to cope with the specific requirements of the AM process required to produce industrial-grade and lightweight parts.

Secondly, workflow software is becoming a vital component to managing the production process as companies expand their integrated additive manufacturing solutions. One example of which is HP's deep alliance with Siemens.

### METAL 3D PRINTING ON RAPID GROWTH TRAJECTORY

As mentioned above, the metal side of additive manufacturing is growing rapidly, and makes up an increasing amount of the worldwide market revenue.

**The revenue from metal was reported to have grown by 41.9% in 2018 (Wohlers, 2019).**

The growth in metal AM is powered by new processes and advancements being made in existing technologies.

Cementing the focus on metals is the fact that a number of the large OEM's are due to commercialise their technologies over the next couple of years. Amongst other, HP's roadmap for their Metal Jet 3D Printing systems states select availability of the systems in 2020, and broad rollout in 2021 (HP, 2018).

However, within the SLM printing format, metal additive manufacturing is likely to slow down in 2020 and there will be some consolidation of machines. This is due to the large amount of metal printers already sold to companies who now need to optimize their processes to benefit from the machines before making new investments.

## GROWTH IN ADOPTION

The adoption of the additive manufacturing technology is also powering general market growth. According to Sculpteo (2019), 70% of enterprises have found new applications for 3D printing in 2019.

A notable case of adoption is SLM Solutions and British aerospace company Orbex successfully 3D printing the largest single-piece rocket engine.

The growth in adoption and application of the technology stems from companies, who purchased machines some years ago, optimized their processes, solved their manufacturing complications and have now started to produce parts. These parts are getting a lot of publicity, creating the perception of increased adoption.
Whilst it is difficult to assess the actual growth in adoption in terms of number of companies who have adopted, it is clear that companies are more mature in their stage of adoption. As a result of this maturity in adoption, companies are now able to publish case studies of additive manufacturing and can clarify in which areas they have been successful in their adoption. As a result of that, we are now seeing more commercial uses of the technology. Examples of this is in apparel, footwear, power generation and in oil and gas.

## QUALITY CONTROL

Because of the above-mentioned growth in adoption of the AM technology, companies are increasingly producing more parts. A key focus area is naturally that these parts can be cleared, verified and installed into end-user solutions.

According to Sculpteo (2019), nearly 50% of enterprises say that quality control is their top challenge of using their 3D printers.

This focus on quality will likely result in a growing demand for quality control professionals, who understand accreditation and quality assurance processes.

# THE GLOBAL WAR FOR TALENT

The fastpaced growth of the AM industry brings with it a significant demand for new employees to join these expanding AM organisations. Moreover, existing firms are expanding and internationalizing their businesses and need professionals in the new regions they are establishing.

This development puts a significant strain on the talent market, as the pool of experienced additive manufacturing professionals is limited and is growing at a slower rate than the market demands. For this reason, there is a significant lack of available qualified professionals in the additive manufacturing industry. This broad lack of talent across the industry and across geographical locations has started this "war for talent".

## QUANTIFYING THE TALENT SHORTAGE

In the 2019 Additive Manufacturing Talent Market Whitepaper, Alexander Daniels Global proposes a quantification of the talent shortage across the industry.

**4.5 : 1**

candidate per job ratio

Research done by Alexander Daniels Global suggests that per 1 available and advertised job in AM, there are just 4.5 available AM professionals to potentially fill that job – across the European AM hubs and the AM market in North America. This ratio is likely to be much lower, taking into account that the candidate has to have specific experience in a field related to the job and has to be either in the same location as the job or be willing to relocate.

**Want more insights on the AM the talent market?**
Download the Talent Market Whitepaper at
www.alexanderdanielsglobal.com/3d-printing-talent-market-whitepaper-2019/

# WHAT DOES THE TALENT MARKET LOOK LIKE?

Understanding the talent market in additive manufacturing is crucial to understanding the benchmark salaries, job motivations, and talent demand from companies. The market is dynamic with an array of different type of professionals with often very varying backgrounds due to the broad nature of the industry. The following analysis and numbers are based on survey responses to the Alexander Daniels Global Salary Survey 2019.

### GENDER DISTRIBUTION

| | |
|---|---|
| MALE: | **85.5%** |
| FEMALE: | **13%** |
| PREFER NOT TO SAY: | **1.5%** |

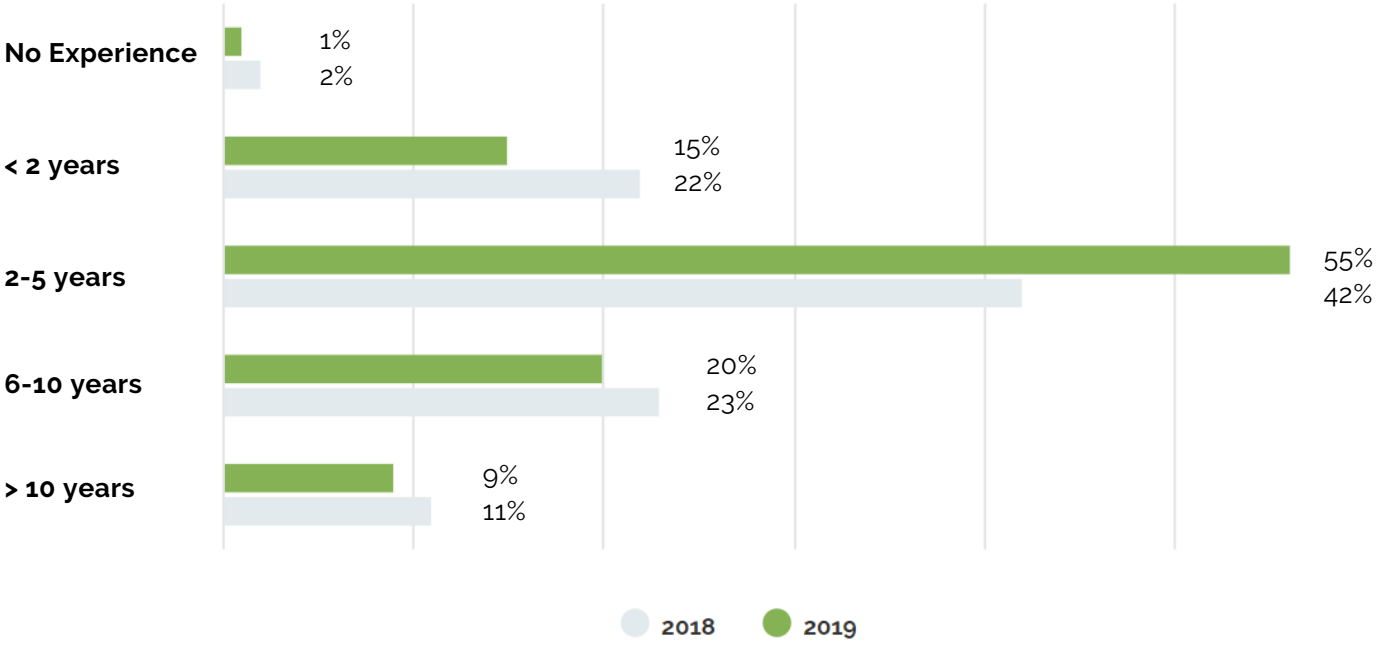
According to our survey, the number of women in the 3D printing industry has increased with 2% point compared to in 2018. The additive manufacturing industry is making a real endeavor to become an equal opportunity employer with significant initiatives from for example Women in 3D Printing; a global organization focused on supporting and inspiring women in the AM industry, having a big community of 10,000+ informal members and hosting several meetups throughout the world.

It is a joint effort by the industry and the companies in AM who are actively trying to attract women into it. Additionally, additive being a new and developing technology is likely attracting young female engineers who can enter this field. Additive manufacturing is a very broad field where anyone can find their place, be it within hardware, software, materials, applications or product design.

Another reason why we are seeing more women coming into this industry is the powerful women that exists in this industry and the inspiration that they provide. Some of the very highlighted women in 3D printing are **Stefanie Brickwede, Kim Smith, Valeria Tirelli, Michelle Bockman, Nora Touré, Roxanne Warren and Marie Langer**. These are all senior-level women in powerful positions who are contributing massively to inspiring women, from other industries, to transition into such an inherently male dominated industry.

## PROFESSIONALS' EXPERIENCE IN AM

According to our responses, the majority of AM professionals have between two- and five-years' experience working in additive manufacturing. This 2-5 year space has increased significantly, which is partly due to the increase in adoption of AM over the last two years, which has caused more people to have hands-on experience with the technology.



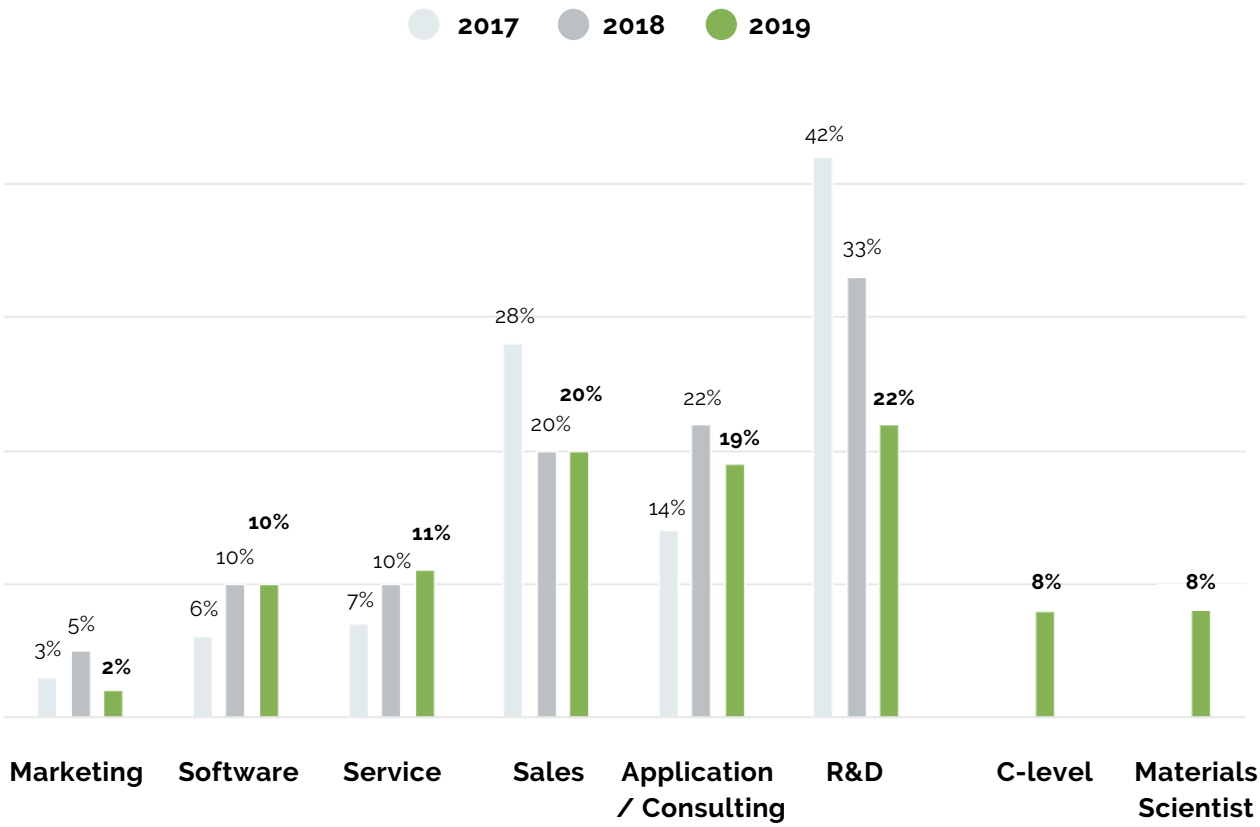

## PRIOR INDUSTRY EXPERIENCE FOR AM PROFESSIONALS

| | |
|---|---|
| **19%** | **No prior experience to AM** |
| **18%** | **Other** |
| **17%** | **Mechanical or Industrial Engineering** |
| **9%** | **Aerospace** |
| **7%** | **IT & Software** |
| **7%** | **Medical / Pharmaceutical** |
| **6%** | **Automotive** |
| **5%** | **Materials Engineering** |
| **4%** | **Industrial Automation** |
| **3%** | **Large Format Printing** |
| **3%** | **CNC / Welding / Milling** |
| **1%** | **Robotics** |

The fact that 37% of the survey respondents came from non or other of the pre-specified industries is an indicator that many professionals come into the industry straight from academia or from R&D.

A significant 22% of the respondents come from adopter industries like aerospace, automotive, and medical. 17% of respondents come from mechanical or industrial engineering.

## WHICH DISCIPLINES DO AM PROFESSIONALS WORK IN?




### 22% OF PROFESSIONALS WORK IN R&D

The Alexander Daniels Global salary study shows that R&D represents the largest discipline in the additive manufacturing industry with 22% of AM professionals. Despite being the largest discipline, the category has decreased over the past two years. One reason for this decrease is found in the terminology. The term 'R&D' is very broad and is used to cover an array of disciplines and can be anything from Process Engineering to traditional research roles. As the industry matures, the roles become more specified and areas like Material Science becomes stand-alone areas as opposed to being covered by the umbrella term 'R&D'. R&D roles are thus shifting into other divisions such as applications and software, whilst still performing the same duties.

## C-LEVEL GROWTH

The numbers above show us, that as the industry matures, there is an increasing amount of C-level roles being created to lead the businesses as they continue to grow.

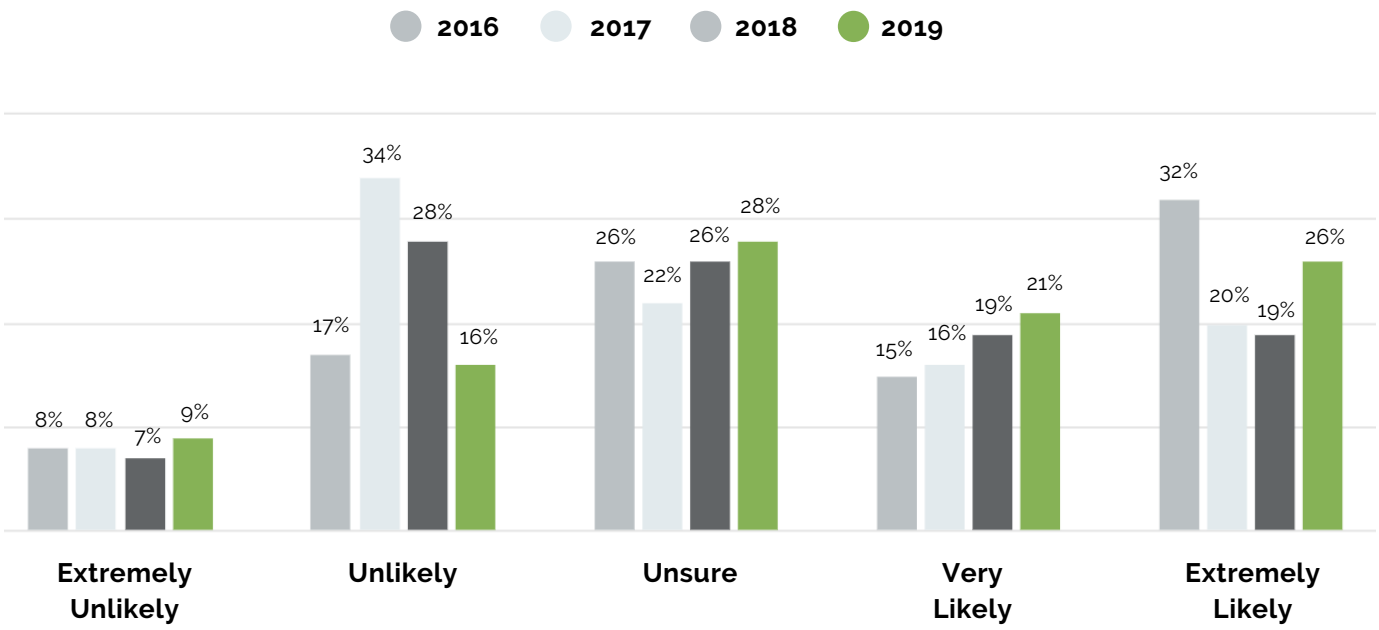
## APPLICATIONS AND CONSULTING

Applications and Consulting continues to be a dominating area within AM, and includes roles like Application Engineers. With the vast and almost incomprehensible amount of applications, application engineers are key to help people understand the exact capabilities and limitations of the machines and tools.

## SALES REMAINS IMPORTANT

Sales remains a key area of the industry. For companies to be able to have solid machine and manufacturing execution systems is increasingly important as the industry moves further into serial production.

## LIKELIHOOD OF AM EMPLOYEES TO CHANGE JOBS WITHIN ONE YEAR




The data above shows the development of AM Professional's likelihood to change jobs within one year. It shows that, from 2019, a larger percentage of people are willing to change jobs more frequently than before.

## 47% ARE VERY OR EXTREMELY LIKELY TO CHANGE JOBS WITHIN THE NEXT 12 MONTHS

A significant 47% of the respondents are very or extremely likely to change jobs within one year. This is up from 38% in 2018 and 36% in 2017.
This significant development is a result of the war for talent; people stay in jobs shorter as they are poached and are often offered better opportunities, more money or a more interesting project.

Another reason for this development is the growth of the sector and the urge to experience different parts of the sector with its large variety of jobs. As an example, many AM professionals work for small start-ups and may be interested in working in a larger AM corporation or with end-users of the technology. Or the other way around, where people working in adopters have found a passion in AM that they want to pursue full time and are thus trying to find jobs in AM OEM's.

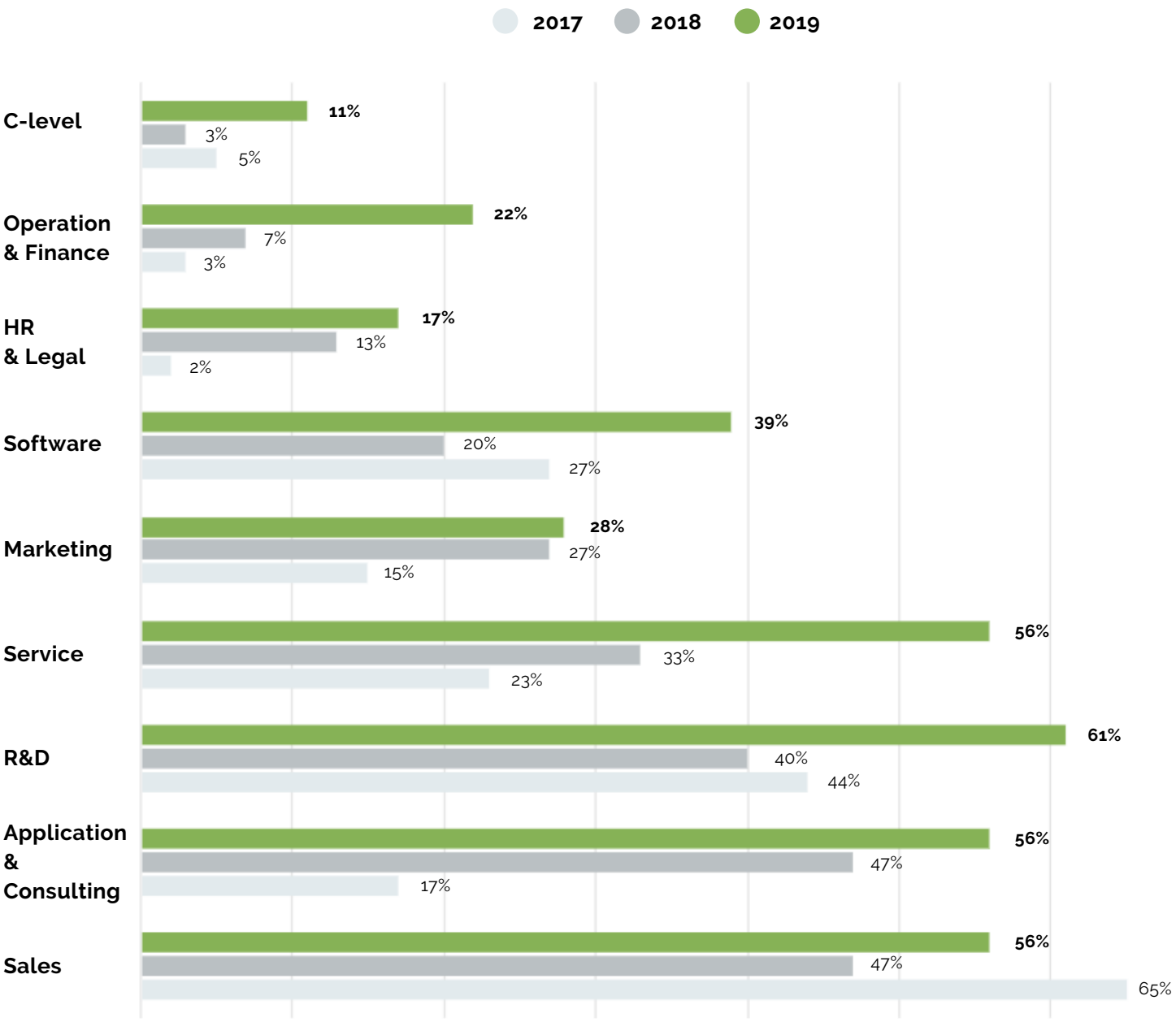
Additionally, more people are coming out of academia and entering the AM industry in, likely, lower level and more junior jobs than what their degree would normally offer them – therefore, they are more likely to change jobs sooner if a better opportunity comes along.

The likelihood to change jobs should make AM employers cautious of their offerings to their employees; they should make sure to offer career progression, a fair salary, and interesting challenges to retain their valued employees.

# WHAT DOES THE MARKET / EMPLOYERS DEMAND?

## MOST IN-DEMAND ROLES

The data below shows which roles AM employers are likely to hire in the next 12 months and is thus an indicator of the currently most in-demand roles from AM employers.



**2017 MOST IN-DEMAND ROLE**

## SALES - 65%

**2018 MOST IN-DEMAND ROLE**

## APPLICATIONS & CONSULTING - 47%

**2019 MOST IN-DEMAND ROLE**

## R&D - 61%

**R&D most in-demand discipline**

R&D, which includes design, has taken over as the most in-demand discipline among hiring AM companies, as 61% of our respondents state that they will hire R&D people within the next 12 months.

This demand is powered by several different factors, one of which is that many 3D printing manufacturers are investing heavily in developing their technology, improving their existing technology platforms or working on future product solutions. Therefore, R&D roles are naturally required. Moreover, the demand is powered by engineering companies who are adopting AM and are thus demanding professionals for this purpose.

However, there exists a misinterpretation of what the term R&D covers and which roles it includes. For different companies at different stages of the adoption and use of additive manufacturing, R&D covers very different type of roles. For an AM OEM, R&D often covers working out different printing processes and devising new machines, whereas for an end-user R&D people would be focused on looking at the part portfolio and how to optimize the use of additive in their production. For a material manufacturer R&D means finding and developing new materials, processing those and developing the necessary parameters. For an OEM printer manufacturer, one job may be categorized as application engineering whereas for an end-user, that same job would be an R&D engineer.

**C-level in higher demand**
C-level roles have seen the highest increase in demand from 2018 to 2019. The demand has seen a 267% increase, going up to 13% of the anticipated hiring demand from AM employers. This demand stems from the realization among adopters of the technology that they need to adopt AM in a more formal way. As a result, they need to bring in senior people who can lead their AM activities, creating this demand for c-level roles.

**Administration surges in demand**

**214%**
**increase in demand for Operations & Finance**

**31%**
**increase in demand for HR & Legal**

Administration related roles like Operations, Finance, HR and Legal have seen surges in demand from 2018 to 2019; demand for Operations & Finance roles has increased by 214% and HR & Legal has increased by 31%.
As the manufacturers of machines become more mature and established, they need more administration and functionality in-house that they can no longer outsource, which powers the increase in demand for admin related roles. Moreover, the demand comes from many start-ups getting funding and being spun out of university and now needing to establish the organisation more formally; through the university these businesses had HR and Finance, but entering into the market as a legit business has them requiring certain functions, such as HR and Finance personnel.

**Service in high demand**
We are seeing an increase in demand for service professionals due to the increase of machines in the market, and thus the need for a consultative service. Namely 56% of companies are hiring Service professionals within the next 12 months. The companies buying several AM machines are requiring internal service people to maintain the machines, because it is a cost advantage as opposed to outsourcing service engineer roles.

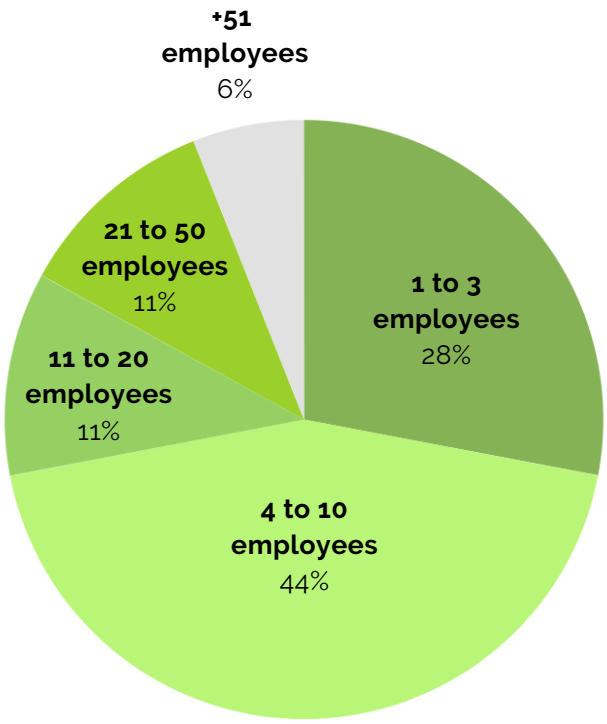
**Applications and sales remain sought-after**

Applications & Consulting and Sales remain highly sought-after disciplines, as companies are both looking to sell their machines and to help their clients realize the exact capabilities and limitations of the machines and tools. AM OEM's are increasingly focused on hiring application engineers to support their customers in either using the technology or understanding its capabilities. More specifically, metal applications experience is highly sought after. Moreover, companies are in increasing need to hire technical experts in order to utilize the technology and move into full production.

## WILLINGNESS TO HIRE

When looking at the willingness for AM employers to hire new employees within the next 12 months, there is a significant amount of companies wanting to hire +21 new employees, namely 17% of the respondents.

This shows the continuous development and demand for new talented professionals, and signifies a real push to build strong teams, quickly.



# WHAT ATTRACTS TALENT?

In this war for talent where talent is scarce, how can additive manufacturing employers attract and retain the top talented people?
To answer this question we must first look at the main motivators for employees to change jobs along with the benefits, besides salary, that employees value the most.

## MOTIVATIONS TO CHANGE JOBS FOR AM PROFESSIONALS

**Career Progression**

77%

**Salary**

72%

**New Challenge**

43%

**Work Environment/ Culture**

32%

**Better Work/Life Balance**

29%

**Newer / Developing Technology**

27%

**Relocation / Commute**

13%

**Social Benefits**

6%

## CAREER PROGRESSION THE BIGGEST MOTIVATOR FOR CHANGING JOBS

Salary is no longer the biggest motivator to change jobs for AM professionals.

For the first time since we started producing the AM salary survey, the main motivation for AM professionals to either leave a job or accept a new opportunity is Career Progression.

**77%**

**think Career Progression is a main motivator**

**72%**

**think Salary is a main motivator**

**48%** **increase**

**in the importance of Newer / Developing Technology as a motivator for professionals to change jobs.**

## NEWER / DEVELOPING TECHNOLOGY IS EVER MORE IMPORTANT

This is likely related to the development and maturing of the AM market; as the technology becomes more widely adopted, people are starting to realize better and better which technologies can be applied where and thus where the biggest opportunities lie. Some professionals may want to shift their focus from a very niche technology to a more 'mainstream' technology with greater opportunities for adoption – or the other way around.

# AM CENTRALIZED HUBS IS BEING REFLECTED IN MOTIVATIONS

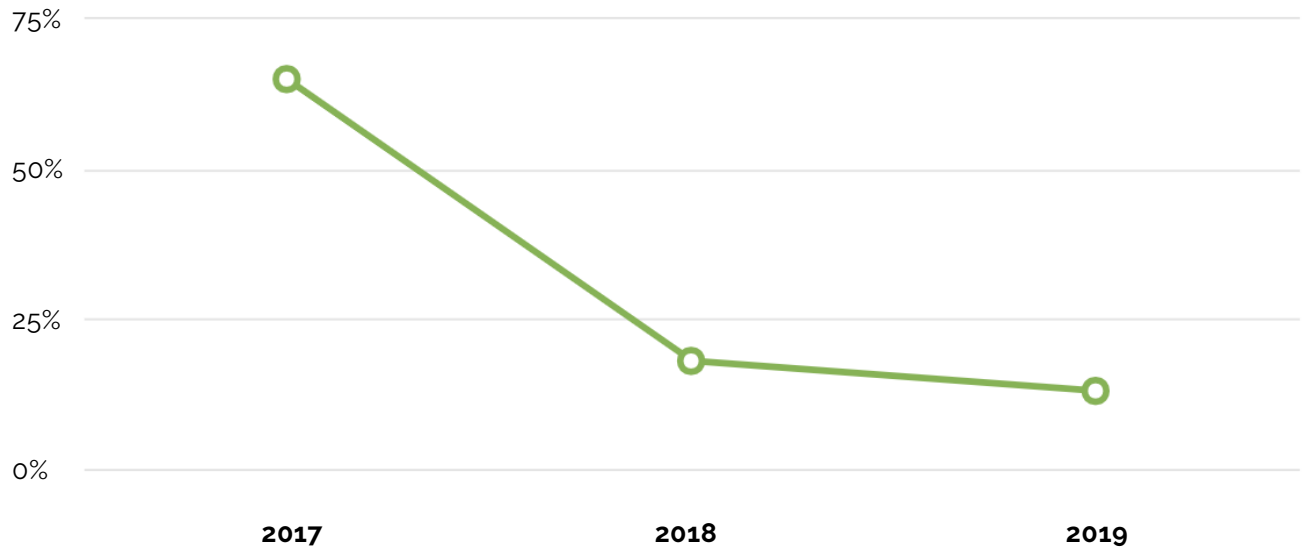
Looking at the historic data from 2017 till 2019, there is a significant decrease in the importance put on Relocation / Commute as a motivator for changing jobs.

**13%**

**think Relocation / Commute is a main motivator**

From 2017 to 2019, there has been a 52 percentage point decrease from 65% to a mere 13% deeming Relocation / Commute a main motivator.
This is a positive change as it reflects better locations of AM companies. The reason for this is that additive is centralizing itself in hubs, and there are certain cities, regions and countries where the AM technology is being adopted faster.

Many AM facilities remain based in remote locations outside of major cities, but with the increasing number of major end-users adopting the AM technology, jobs are better located, and now many AM jobs are based in attractive tech hubs, such as Munich, Boston and San Francisco.



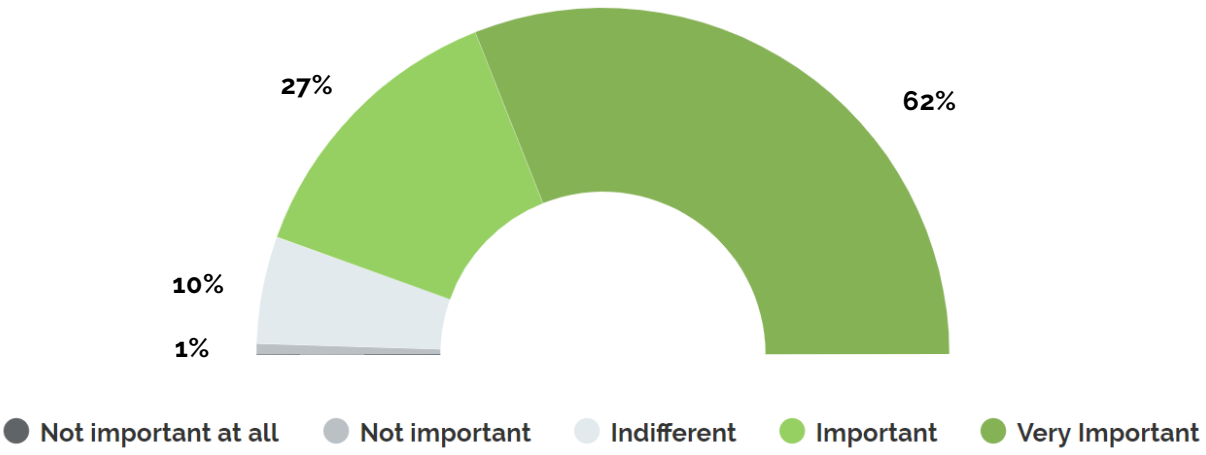

**Get in-depth insights to the AM talent market in specific AM hubs**

Download the Talent Market Whitepaper at
www.alexanderdanielsglobal.com/3d-printing-talent-market-whitepaper-2019/

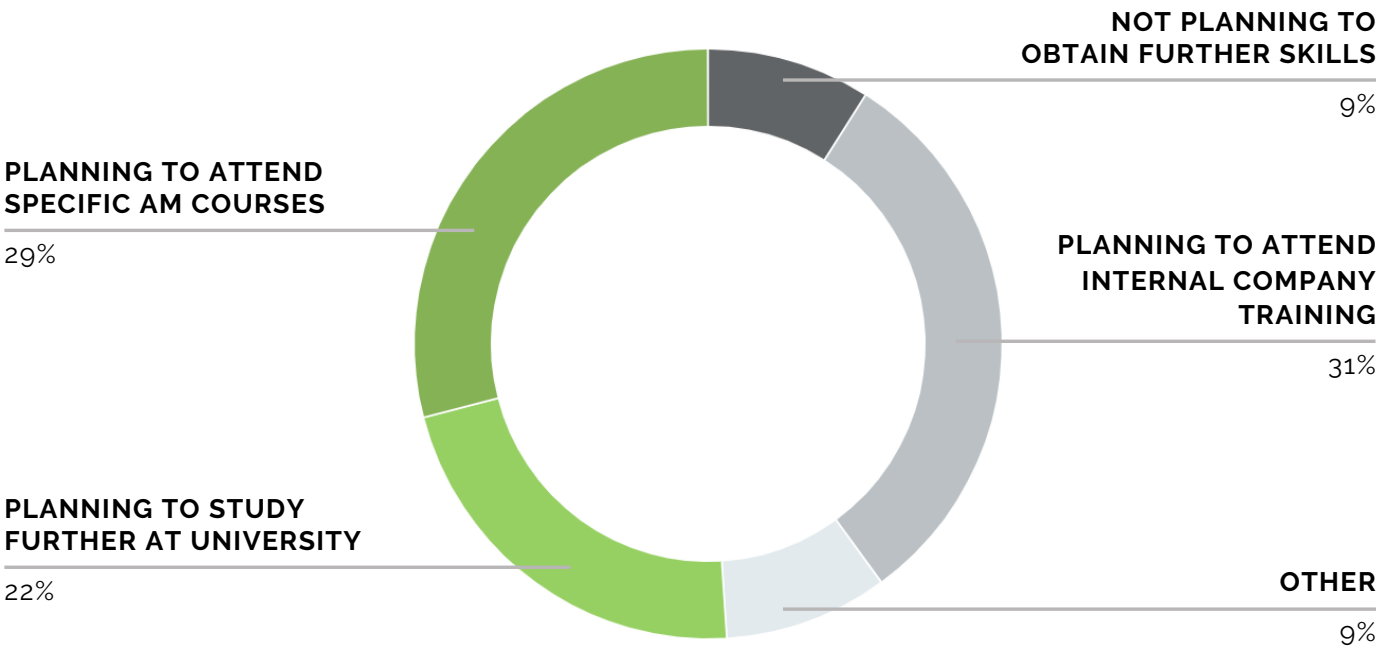
# SPOTLIGHT: CAREER PROGRESSION

## THE IMPORTANCE OF CAREER PROGRESSION FOR AM PROFESSIONALS

A whopping 89% of our AM professional respondents state that Career Progression is important or very important. This is a clear indicator of the ambitious and long-term thinking professionals existing in this industry.




## INTENTIONS TO UP-SKILL FOR CAREER PROGRESSION



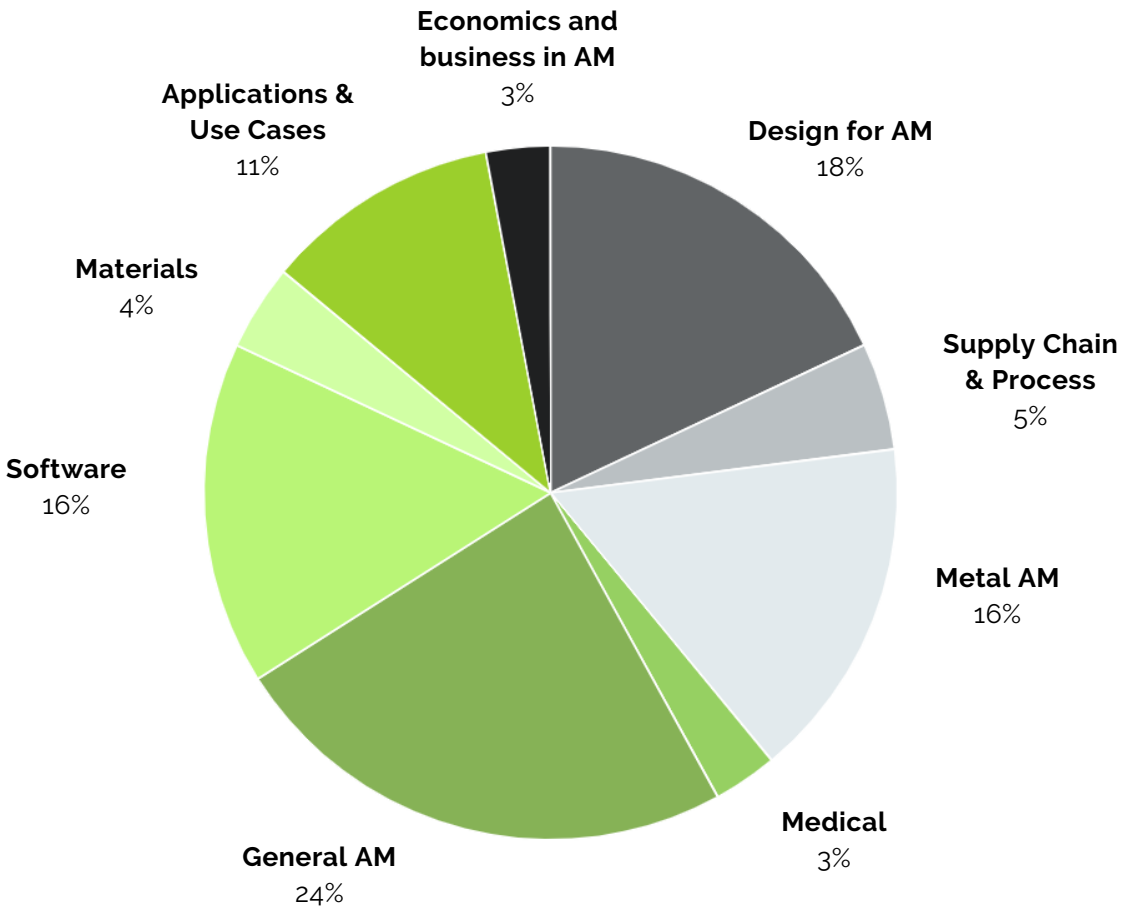
A lot of people in this industry are focused on up-skilling themselves in order to grow their career. The majority of professionals plan to attend internal company trainings and a significant 29% are looking to up-skill via AM specific courses. The urge to attend AM specific courses is likely due to the significant amount of new learning opportunities created in the market; universities, certification bodies and consultant services are being created focused on AM, providing people with a real opportunity to learn.

## MOST IN-DEMAND AM SPECIFIC COURSES

**'General AM' and 'Design for AM'** are the most popular AM courses to join, among our participants.

**'General AM'** courses are likely in demand as people realize the benefits of having hands-on utilisation experience with the technology. Hands-on experience is increasingly valued by hiring companies which is likely pushing this urge.

'**Design for AM'** is an in-demand skills among employers as they look to bring in people who understand the process of manufacturing within AM; who understand conventional manufacturing; and who can combine that knowledge through the design work. This demand amongst AM employers is likely fuelling the wish for AM professionals to obtain that skill.



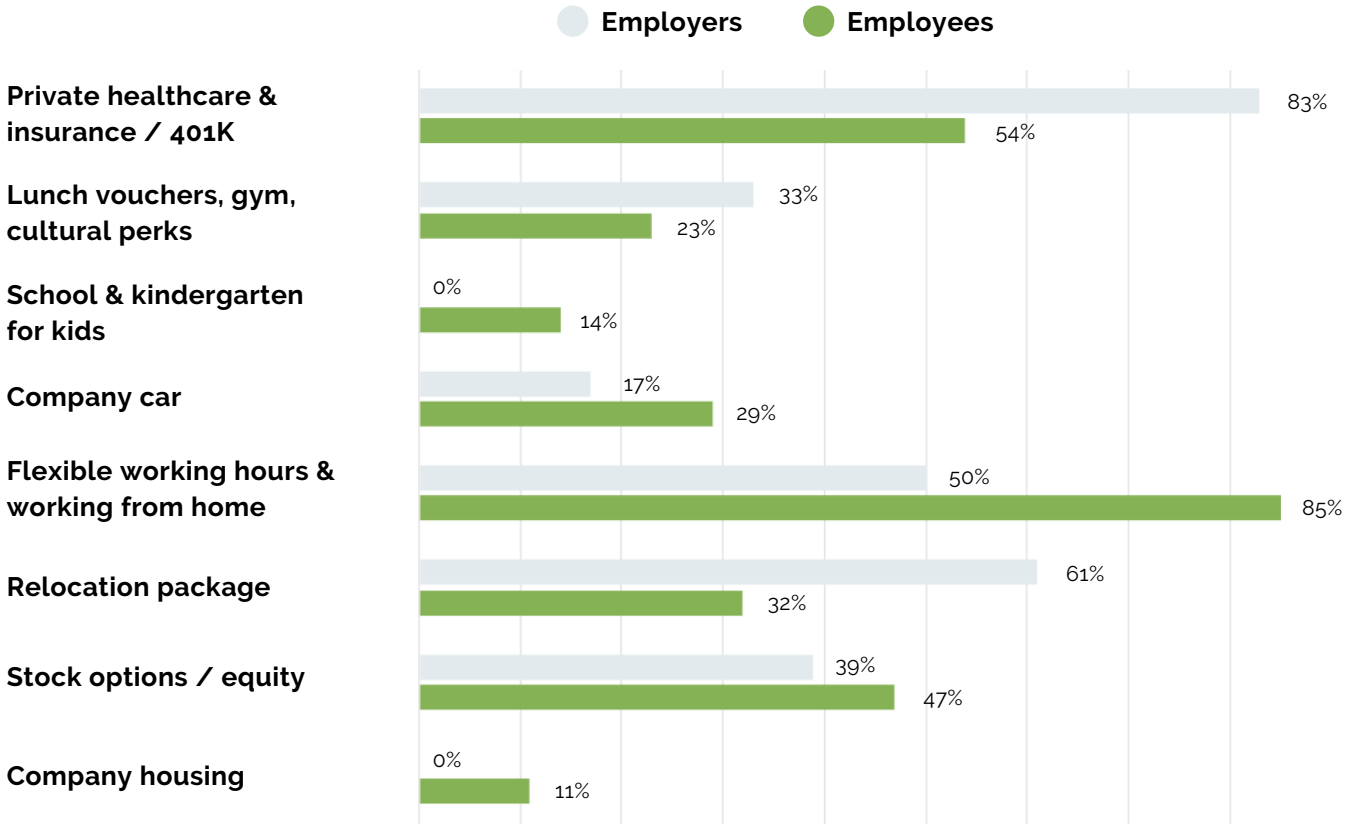
# DESIRED EMPLOYEE BENEFITS

As part of the remuneration package, many employers offer employee benefits to attract and retain the top talent. According to the Alexander Daniels Global salary survey, the below are the three most valued benefits for AM professionals and the three most commonly offered benefits by AM employers.

| MOST VALUED BENEFITS BY EMPLOYEES | |
|---|---|
| 1 | Flexible working hours and working from home |
| 2 | Private healthcare & insurance / 401K |
| 3 | Stock Options / Equity |

| MOST COMMONLY OFFERED BENEFITS BY EMPLOYERS | |
|---|---|
| 1 | Private healthcare & insurance / 401K |
| 2 | Relocation Package |
| 3 | Flexible working hours and working from home |

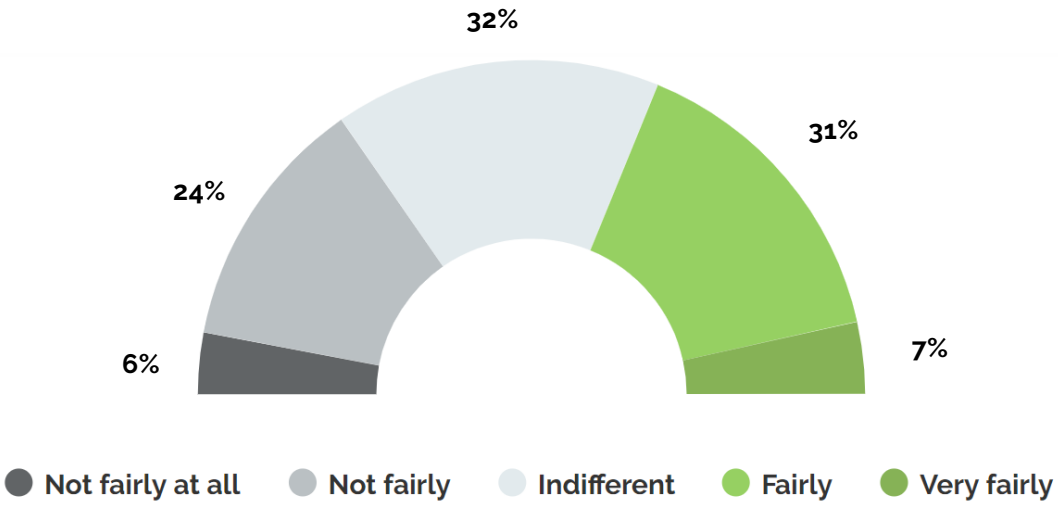
**The graph below shows the desired benefits of employees versus the benefits AM employers are currently offering.**



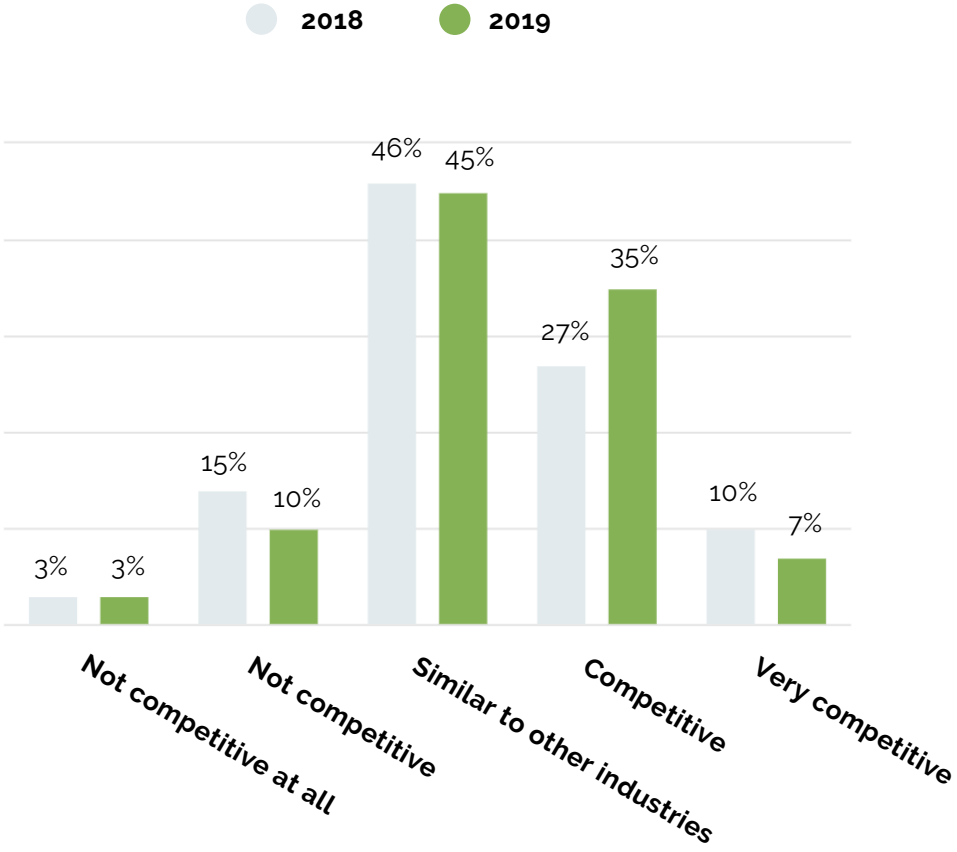
## SALARY COMPETITIVENESS

With salary remaining an important motivator for people to change jobs, we have looked further into this aspect to evaluate the general perception of salaries in the AM industry.

**We asked the following: "In your opinion, how fairly are you being paid / compensated?"**




**"Do you think AM is competitive in salaries in comparison to other similar industries?"**



## AM SALARIES ARE COMPETITIVE

There is a skew towards AM salaries being perceived competitive in comparison to salaries in other similar industries. This is a sign that within AM, the salaries are likely higher than in competitive or similar industries.

**45%**

**perceive AM salaries similar to salaries in other industries**

**42%**

**think AM salaries are competitive or very competitive to other industries**

There are several seasons as to why AM salaries are likely higher than in other industries:

**1.** Additive is still a relatively new and unpredictable market and companies are seeing themselves compelled to pay high salaries to compensate for the risk their employees take upon entering the industry.

**2.** The highly competitive salaries in the AM industry is also an indicator of the war for talent and the scarcity that still exists; AM employers are prone to paying higher salaries to AM employees to both attract and retain the rare talent.

**3.** The AM industry is competing with other industry 4.0 technologies, both for talent and for adoption. A lot of the skills required by the additive manufacturing industry are also required by other industry 4.0 technologies such as big data and digital automation. AM as a technology may be struggling to attract the top talent, which sees companies offering higher salaries to attract talent

# TOP TIPS ON ATTRACTING AND RETAINING THE RIGHT TALENT

### #1 OFFER CAREER PROGRESSION AND OPPORTUNITIES TO LEARN

77% of our AM professional respondents state that Career Progression is a major motivator to change jobs – in fact it is the most dominating motivator in 2019. Make sure you present a clear career path of the position upfront, and already at the point of interview with potential new employees. Make sure you understand the motivation and ambition of the candidate to ensure that the candidate is a fit for the position and the career progression it offers. Additionally, take advantage of the option for internal training; 31% of our respondents state that they plan on attending internal company training, highlighting the importance of this. An internal training program will allow to build your ranks; will allow employees to develop their career tracks; and it will ensure you a sustainable pipeline of talented and experienced workers.
The AM talent is hungry to learn - offering them the opportunities to keep learning and giving them access to the right learning tools will count majorly towards their job satisfaction.

### #2 COMPENSATION

The competition for quality workers in AM has intensified dramatically over the past years, and HR managers are feeling pressured to pay workers more. Not surprisingly, most candidates agree with this strategy as 72% state salary as a major motivator to leave a job or take on a new one. Thus, it is crucial to make sure you are not offering a salary below industry standards. Note that you need to offer salaries reflecting the INDUSTRY standards as opposed to sector standards. Moreover, companies should strongly consider offering equity to their employees, as it ranks among top three of most preferred benefits, aside from salary. Moreover, allow for flexible working hours and working from home as it is THE most valued benefit by AM professionals, aside from salary. To get an idea of what salaries to offer your candidates, refer to the salary analysis in the section below.

### #3 UNDERSTANDING AND ACKNOWLEDGING KEY SKILLS

The best way that companies can attract and retain talent, is by understanding and acknowledging the skills required to get additive manufacturing right. Because the AM technology is so complex and the applications of the technology often require very high levels of precision, AM engineers should not be compensated on the same level as engineers in traditional manufacturing, like for example CNC. We see companies spending hundreds of thousands of pounds on materials and then making mistakes in their production because they have failed to acknowledge the skill it takes to get it right.

**WANT MORE ADVICE ON HIRING IN ADDITIVE MANUFACTURING?**

Alexander Daniels Global has conducted extensive research into the Talent Market of Additive Manufacturing and has published the results and in-depth analysis in a whitepaper. The whitepaper includes an extensive guide with tangible advice on how to attract, hire and retain the best employees in additive manufacturing.

The Talent Market Whitepaper contains everything you need to understand the talent market in AM. It uncovers key hiring trends, in-demand roles and skills, the talent gap, and much more, split into the largest AM hubs globally; Massachusetts, California, Germany, Spain, France and the UK.

The Whitepaper is an invaluable toolbox to hiring in the 3D printing / additive manufacturing industry.

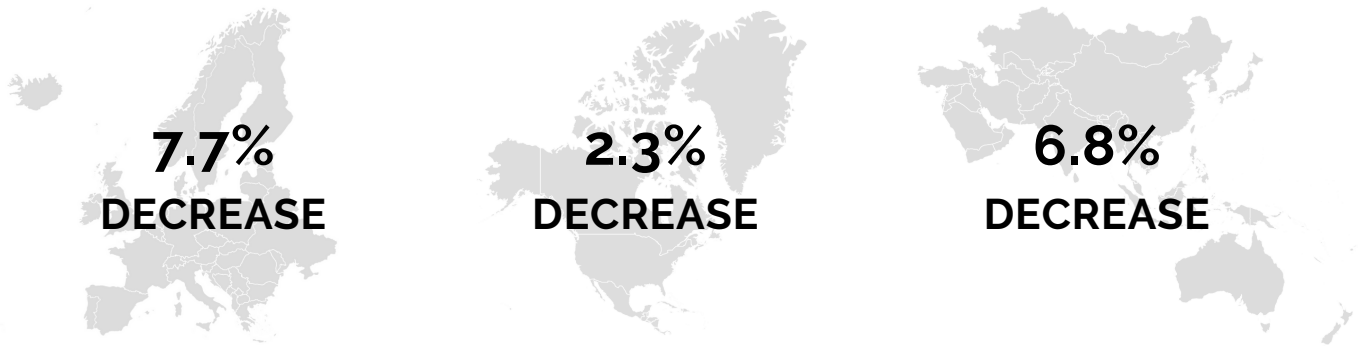
**Obtain the AM Talent Market Whitepaper here**:
www.alexanderdanielsglobal.com/3d-printing-talent-market-whitepaper-2019/

# SALARY ANALYSIS BY DISCIPLINE

In order to provide a clear picture of how the AM market is evolving, we have zoomed in on the different job disciplines to be found in the AM industry, reviewed the trends and compared the salaries across the world, across different locations, seniority and disciplines. The indicated salaries are base salaries only, and do not include commissions,

In all salary analysis of increase or decrease, the C-suit roles have been excluded, due to the larger variance in the numbers and it thus not being reflective of the general trends.

**DIFFERENCES IN AVERAGE SALARIES ACROSS ALL DISCIPLINES, 2018 - 2019**




For many years, we have seen salary increases above the inflation rate, on a global level. For the first time, we are seeing average salaries decrease. These salary decreases do not mean that employees in the AM industry have taken a pay-cut, but it is an indicator that the industry is maturing and more people are entering the industry, causing a larger variance of salaries. People are entering the industry progressing from entry level positions through to more senior roles. Historically, the dominant group of talent were those that had been in the industry for +10 years. Now the dominant group are the ones with 2-5 years' experience. As this generation shift happens, the salaries are balancing out more. There are larger variances and the average salaries are brought down by the increased volumes at lower level positions.

## EMEA TENDENCIES

**Largest decrease is in R&D and Engineering**
The discipline that has seen the largest decrease is R&D and Engineering where the average salaries have decreased by 12% across different levels of seniority. It is the significant decrease in minimum salaries that pulls down the average salaries.

**Smallest decrease is in Software**
The discipline that has seen the smallest decrease is Software where the average salaries have gone down by just 1%.

**Max salaries increase in Applications & Consulting and Sales**
In Sales, the maximum salaries have gone up by 24%.
In Applications & Consulting, the maximum salaries have gone up by 8%.

## NORTH AMERICA TENDENCIES

**Increases and decreases**
Average salaries across all disciplines and seniorities in North America have decreased by 2.3% compared to 2018 – in some disciplines the average salaries across seniorities have increased and in some they have decreased:

**INCREASES**

| | |
|---|---|
| **5%** | Application & Consulting |
| **3%** | R&D and Engineering |
| **10%** | Software |

**DECREASES**

| | |
|---|---|
| **9%** | Sales |
| **8%** | Marketing |
| **0%** | Service |

**Software increase**
The increases in the salaries of software professionals is arguably due to the locations where most of these professionals are hired: major tech hubs like Boston and San Francisco Bay Area where the salaries are typically higher

# SERVICE ENGINEERING

A business can successfully develop, market and sell a fantastic technology product but that is merely the start of the relationship with the customer. It is essential that the product is installed properly, works as it should and is consistently maintained. The cost to a customer of a product breaking down can massively impact their productivity and damage their trust in the supplier.

The Service Team provides critical support to internal and external customers by applying their knowledge and experience with additive manufacturing equipment. The role of a Service Team is primarily focused on field installation including mechanical set-up, electrical hook-up, precision alignment, maintaining and repairing the equipment all the while establishing customer network interfaces. In addition, the Service Team provides technical phone support, troubleshoots electrical, software and mechanical systems problems, and provides customer training on system use.

### TYPE OF ROLES

- Field Service Engineer
- Field Service Technician
- Service Director

### TYPICAL JOB RESPONSIBILITIES

- Installation, maintenance and service of 3D Printers
- Planning, processing, documentation and analysis of service points
- Processing feedback of insights gained from the customer support to the organisation
- Providing technical support to key accounts
- Provide remote and on-site support

### SALARY ANALYSIS

**4%** decrease in average salaries, across all regions and seniorities within Service Engineering

**7%**

**decrease** in average salaries, across seniorities in **EMEA**

**0%**

change in average salaries, across seniorities in **North America**

**5%**

**decrease** in average salaries, across seniorities in **APAC**

| Service | | Junior 0-2 years experience | Senior 2-5 years experience | Manager 5-10 years experience | Senior Manager 10-15 years experience | C-suite +15 years experience |
|---|---|---|---|---|---|---|
| EMEA | Min | € 35,000 | € 42,000 | € 56,000 | € 88,000 | € 105,000 |
| | Avg | **€ 38,000** | **€ 58,000** | **€ 80,000** | **€ 126,000** | **€ 180,000** |
| | Max | € 48,000 | € 78,000 | € 106,000 | € 137,000 | € 210,000 |
| North America | Min | $ 40,000 | $ 66,000 | $ 75,000 | $ 94,000 | $ 112,000 |
| | Avg | **$ 54,000** | **$ 77,000** | **$ 98,000** | **$ 130,000** | **$ 150,000** |
| | Max | $ 70,000 | $ 89,000 | $ 105,000 | $ 148,000 | $ 190,000 |
| APAC | Min | $ 28,000 | $ 38,000 | $ 62,000 | $ 81,000 | $ 119,000 |
| | Avg | **$ 36,000** | **$ 52,000** | **$ 71,000** | **$ 114,000** | **$ 141,000** |
| | Max | $ 43,000 | $ 70,000 | $ 90,000 | $ 133,000 | $ 166,000 |

# APPLICATION & CONSULTING

Understanding the potential of additive manufacturing technology is not always apparent to organisations. Some companies will be just starting their AM journey while others will be further along and working towards building the factories of the future. The ability to help organisations move further down their path to AM adoption often sits with the skills and experience of the Application Engineering/Consulting teams.

Working within Application Engineering & Consulting is one of the more technically challenging roles within Additive Manufacturing. Working closely with sales and business development application engineers help support customers to understand the technology, its applications in their organisation and the wider transformational impact it could have. The application engineers work with potential customers to understand their requirements and demonstrate how AM can be adopted to realize its benefits.

### TYPE OF ROLES

- Application Engineer
- 3D Printing Engineer
- Client Application Engineer

### TYPICAL JOB RESPONSIBILITIES

- Understand customer requirements and demonstrate how AM can be adopted to realize its benefits
- Provide feedback to R&D to help develop the next technology.
- Developing technical documentation and parameters
- Support the development and integration of solutions to meet customer requirements

### SALARY ANALYSIS

**4%** decrease in average salaries, across all regions and seniorities within Applications & Consulting

**9%**

**decrease** in average salaries, across seniorities in **EMEA**

**5%**

**increase** in average salaries, across seniorities in **North America**

**9%**

**decrease** in average salaries, across seniorities in **APAC**

| Applications & Consulting | | Junior 0-2 years experience | Senior 2-5 years experience | Manager 5-10 years experience | Senior Manager 10-15 years experience | C-suite +15 years experience |
|---|---|---|---|---|---|---|
| EMEA | Min | € 33,000 | € 44,000 | € 62,000 | € 80,000 | € 105,000 |
| | Avg | **€ 41,000** | **€ 69,000** | **€ 85,000** | **€ 121,000** | **€ 170,000** |
| | Max | € 65,000 | € 102,000 | € 120,000 | € 150,000 | € 200,000 |
| North America | Min | $ 50,000 | $ 65,000 | $ 85,000 | $ 112,000 | $ 120,000 |
| | Avg | **$ 75,000** | **$ 100,000** | **$ 133,000** | **$ 178,000** | **$ 193,000** |
| | Max | $ 110,000 | $ 120,000 | $ 150,000 | $ 205,000 | $ 240,000 |
| APAC | Min | $ 36,000 | $ 46,000 | $ 64,000 | $ 110,000 | $ 129,000 |
| | Avg | **$ 41,000** | **$ 55,000** | **$ 82,000** | **$ 126,000** | **$ 170,000** |
| | Max | $ 48,000 | $ 78,000 | $ 120,000 | $ 180,000 | $ 230,000 |

# SOFTWARE

Living in a completely connected world nothing is possible without Software and in the case of Additive Manufacturing, the hardware (i.e. the machine) is just the tool by which the part is created, the true enabler is software.

Software is critical at all stages within the AM process. In the design phase it is software that enables the creation of the intricate parts that can then be built. Desktop application software translates the complex design files and communicates them with the hardware. Embedded Software then drives the hardware to achieve the desired product. Throughout the process, software which measures the build process and provides real time data.

### TYPE OF ROLES

- Software Engineer
- Software Architect
- Embedded Engineer
- Software Developer
- Data Architect

### TYPICAL JOB RESPONSIBILITIES

- Define, develop and build software architecture
- Develop cutting-edge software allowing efficient
- workflow from 3D CAD models to printed parts
- Follow the software development lifecycle
- Determine operational feasibility by evaluating analysis, problem definition, requirements, solution development, and proposed solutions.

### SALARY ANALYSIS

**3%** decrease in average salaries, across all regions and seniorities within Software

**1%**

**decrease** in average salaries, across seniorities in **EMEA**

**10%**

**increase** in average salaries, across seniorities in **North America**

**0%**

change in average salaries, across seniorities in **APAC**

| Software | | Junior 0-2 years experience | Senior 2-5 years experience | Manager 5-10 years experience | Senior Manager 10-15 years experience | C-suite +15 years experience |
|---|---|---|---|---|---|---|
| EMEA | Min | € 28,000 | € 45,000 | € 63,000 | € 90,000 | € 125,000 |
| | Avg | **€ 43,000** | **€ 65,000** | **€ 84,000** | **€ 125,000** | **€ 170,000** |
| | Max | € 49,000 | € 80,000 | € 105,000 | € 145,000 | € 200,000 |
| North America | Min | $ 51,000 | $ 79,000 | $ 100,000 | $ 117,000 | $ 110,000 |
| | Avg | **$ 64,000** | **$ 119,000** | **$ 158,000** | **$ 200,000** | **$ 227,000** |
| | Max | $ 83,000 | $ 133,000 | $ 175,000 | $ 215,000 | $ 270,000 |
| APAC | Min | $ 36,000 | $ 48,000 | $ 71,000 | $ 90,000 | $ 140,000 |
| | Avg | **$ 49,000** | **$ 60,000** | **$ 84,000** | **$ 146,000** | **$ 202,000** |
| | Max | $ 55,000 | $ 80,000 | $ 120,000 | $ 180,000 | $ 250,000 |

# MARKETING

Developing a good product is one thing and having a good sales team in place to sell it is another but of equal importance is ensuring that the product is positioned correctly, targeted towards the right end user and is supported with marketing material to help sell the features and benefits.

The marketing team plays an early role in new product development initially by identifying key gaps within the market that new technology could service. Once a new product has been created they will be responsible for developing the go-to-market strategy alongside Sales and Business Development and will then implement the marketing plans to support the strategy.

### TYPE OF ROLES

- Marketing Manager
- Product Manager
- Marketing Lead
- Strategy Manager

### TYPICAL JOB RESPONSIBILITIES

- Manage the product portfolio throughout the lifecycle
- Improve and develop the strategic plans to support the entire product portfolio
- Define and create the way the products or services create value for the business in the future
- Analyzing the market and competitive environment to define a differentiated product vision that delivers unique value.

### SALARY ANALYSIS

**6%** decrease in average salaries, across all regions and seniorities within Marketing

**5%**

**decrease** in average salaries, across seniorities in **EMEA**

**8%**

**decrease** in average salaries, across seniorities in **North America**

**5%**

**decrease** in average salaries, across seniorities in **APAC**

| Marketing | | Junior 0-2 years experience | Senior 2-5 years experience | Manager 5-10 years experience | Senior Manager 10-15 years experience | C-suite +15 years experience |
|---|---|---|---|---|---|---|
| EMEA | Min | € 28,000 | € 40,000 | € 52,000 | € 100,000 | € 105,000 |
| | Avg | **€ 36,000** | **€ 55,000** | **€ 69,000** | **€ 105,000** | **€ 125,000** |
| | Max | € 40,000 | € 77,000 | € 90,000 | € 120,000 | € 145,000 |
| North America | Min | $ 30,000 | $ 52,000 | $ 70,000 | $ 90,000 | $ 128,000 |
| | Avg | **$ 45,000** | **$ 64,000** | **$ 95,000** | **$ 130,000** | **$ 165,000** |
| | Max | $ 55,000 | $ 80,000 | $ 150,000 | $ 158,000 | $ 260,000 |
| APAC | Min | $ 28,000 | $ 43,000 | $ 51,000 | $ 77,000 | $ 105,000 |
| | Avg | **$ 34,000** | **$ 47,000** | **$ 63,000** | **$ 91,000** | **$ 134,000** |
| | Max | $ 46,000 | $ 62,000 | $ 78,000 | $ 119,000 | $ 161,000 |

# R&D AND ENGINEERING

Research and development is a fundamental part of the future for the sector and is instrumental in creating new technology, discovering new applications and processes, and developing new materials or software, that enable the advancement of additive manufacturing. 3D Printer Manufacturers are looking to evolve the existing technology and develop new technology. This requires knowledge of mechanical, electrical, electronic and software engineering, as well as an understanding of material science and process development. Adopters of AM are likewise looking at ways of developing their business model either through new product development enabled by the freedom of design and complexity of build structures that AM allows, or supply chain evolution brought about by bringing manufacturing closer to the point of consumption.

R&D is responsible for discovering new scientific or technological concepts that allow the creation of new products, processes and services. The R&D manager is key in facilitating future product development and the transfer of intellectual property from a lab or research centre into industry. The R&D manager also ensures that the direction of research projects reflects the needs of industry and provides the technical marketing required to educate others on the benefits of new products or processes. Research and development is conducted by both industry and educational institutions with a large number of initial concepts starting in universities. R&D incorporates mechanical, electrical, chemical, material science and software development with the key areas currently for 3D printing being material and software.
As mentioned previously, R&D covers such a broad spectrum of activity related to AM, so the below are just some of the jobs within R&D.

**TYPE OF ROLES**

- Controls Engineer
- Research Scientist
- Material Scientist
- Process Engineer
- Mechanical Engineer
- Technology Development Engineer
- Engineering Quality Consultant

**TYPICAL JOB RESPONSIBILITIES**

Due to the variety of roles within R&D, it is impossible to create a set of typical job responsibilities.

## SALARY ANALYSIS

**7%** decrease in average salaries, across all regions and seniorities within R&D and Engineering

**12%**

**decrease** in average salaries, across seniorities in **EMEA**

**3%**

**increase** in average salaries, across seniorities in **North America**

**11%**

**decrease** in average salaries, across seniorities in **APAC**

| R&D and Engineering | | Junior 0-2 years experience | Senior 2-5 years experience | Manager 5-10 years experience | Senior Manager 10-15 years experience | C-suite +15 years experience |
|---|---|---|---|---|---|---|
| EMEA | Min | € 27,000 | € 42,000 | € 60,000 | € 75,000 | € 115,000 |
| | Avg | **€ 40,000** | **€ 61,000** | **€ 79,000** | **€ 125,000** | **€ 160,000** |
| | Max | € 54,000 | € 75,000 | € 101,000 | € 155,000 | € 195,000 |
| North America | Min | $ 46,000 | $ 70,000 | $ 82,000 | $ 120,000 | $ 140,000 |
| | Avg | **$ 68,000** | **$ 109,000** | **$ 138,000** | **$ 195,000** | **$ 210,000** |
| | Max | $ 90,000 | $ 130,000 | $ 170,000 | $ 220,000 | $ 300,000 |
| APAC | Min | $ 33,000 | $ 46,000 | $ 66,000 | $ 100,000 | $ 123,000 |
| | Avg | **$ 40,000** | **$ 55,000** | **$ 77,000** | **$ 123,000** | **$ 158,000** |
| | Max | $ 44,000 | $ 70,000 | $ 110,000 | $ 145,000 | $ 194,000 |

## SALES

A great product can arguably sell itself, but with so many different technologies, increasing competition and varying applications the skill set of the sales team within additive manufacturing is vastly significant to the success of an organisation. First they have to build relationships with potential customers and partners. Second, they must understand the need of the customer and then provide a solution which enables the customer to achieve their goals with AM technology.

There are typically two types of sales models adopted within additive manufacturing: Direct Sales and Indirect Sales, although most businesses will adopt a hybrid model involving both.

**Direct Sales** will involve dealing directly with the end customer whether that is in Aerospace, Automotive, Medical etc. A Business Development or Sales Professional working within direct sales selling into one of these industries may have a background in the industry. Direct Sales Managers represent the company in certain regions and develops long term relationships with a variety of industrial customers, supporting them in the adoption of the technology and helps to identify additional opportunities.

**Indirect Sales** involves developing relationships with key partners such as distributors or resellers. An Indirect Sales professional might be known as a Channel Manager, and may be recruiting and training partners to support them closing deals with customers. Channel Managers take care of partner programs which includes identifying new business opportunities, recruiting channel partners, negotiating partner agreements, and supporting partner sales.

## SALARY ANALYSIS

**9.6%** decrease in average salaries, across all regions and seniorities within Sales

**8%**

**decrease** in average salaries, across seniorities in **EMEA**

**9%**

**decrease** in average salaries, across seniorities in **North America**

**12%**

**decrease** in average salaries, across seniorities in **APAC**

| Sales | | Junior 0-2 years experience | Senior 2-5 years experience | Manager 5-10 years experience | Senior Manager 10-15 years experience | C-suite +15 years experience |
|---|---|---|---|---|---|---|
| EMEA | Min | € 28,000 | € 35,000 | € 55,000 | € 75,000 | € 100,000 |
| | Avg | **€ 46,000** | **€ 62,000** | **€ 82,000** | **€ 118,000** | **€ 170,000** |
| | Max | € 70,000 | € 105,000 | € 130,000 | € 185,000 | € 205,000 |
| North America | Min | $ 41,000 | $ 55,000 | $ 80,000 | $ 105,000 | $ 130,000 |
| | Avg | **$ 56,000** | **$ 100,000** | **$ 130,000** | **$ 180,000** | **$ 200,000** |
| | Max | $ 70,000 | $ 122,000 | $ 175,000 | $ 200,000 | $ 230,000 |
| APAC | Min | $ 37,000 | $ 46,000 | $ 64,000 | $ 97,000 | $ 129,000 |
| | Avg | **$ 40,000** | **$ 55,000** | **$ 78,000** | **$ 120,000** | **$ 188,000** |
| | Max | $ 51,000 | $ 69,000 | $ 110,000 | $ 150,000 | $ 230,000 |

# HOW CAN WE HELP YOU?

## WHO WE ARE

At Alexander Daniels Global we are committed to helping the additive manufacturing industry grow. Our contribution is talent.

We have a niche focus on recruitment for the AM industry and we possess in-depth knowledge of the industry, which has granted us great insight into the needs of AM employers; we know your hiring difficulties and we know how to overcome them.

## OUR NETWORK

Our network counts more than 65,000 AM professionals including off-market candidates that are not actively searching for new positions.

We use this extensive network to fill positions for our clients in North America, EMEA and APAC regions

## DISCIPLINES WE SERVE

- Executive Managers
- R&D and Engineering
- Marketing
- Sales & Business Development
- Software
- Service
- Applications & Consulting

## CLIENTS WE WORK WITH

- Original Equipment Manufacturers
- Software companies (design, optimization & topology, simulation workflow, machine communication and control)
- Material manufacturers
- Adopters of advanced manufacturing and 3D printing in different industries
- Resellers
- Distributors

# GET IN TOUCH

## TALK TO US ABOUT YOUR HIRING NEEDS


**NICK PEARCE**
CEO

nick.pearce@alexanderdanielsglobal.com
+44 7815 184 523



**IULIA OPREA**
Director Germany

iulia.oprea@alexanderdanielsglobal.com
+49 15 15 06 55 370



**JENNIFER KILLINGBACK**
Director North America

jennifer.killingback@alexanderdanielsglobal.com
+1 313 800 0113


**WEBSITE**
www.alexanderdanielsglobal.com

**PHONE NUMBER**
+44 121 503 2170

**SOCIAL MEDIA**
LinkedIn.com/alexanderdanielsglobal

Twitter.com/AD_GlobalTalent

Instagram.com/alexanderdanielsglobal

# SOURCES

HP (2018). HP Launches World's Most Advanced Metals 3D Printing Technology for Mass Production to Accelerate 4th Industrial Revolution. Retrieved from https://press.ext.hp.com/us/en/press-releases/2018/hp-launches-worlds-most-advanced-metals-3d-printing-technology.html

Sculpteo (2019). The State of 3D Printing 2019. Retrieved from https://info.sculpteo.com/the-state-of-3d-printing-report

Wohlers Associates (2019). Wohlers Report 2019