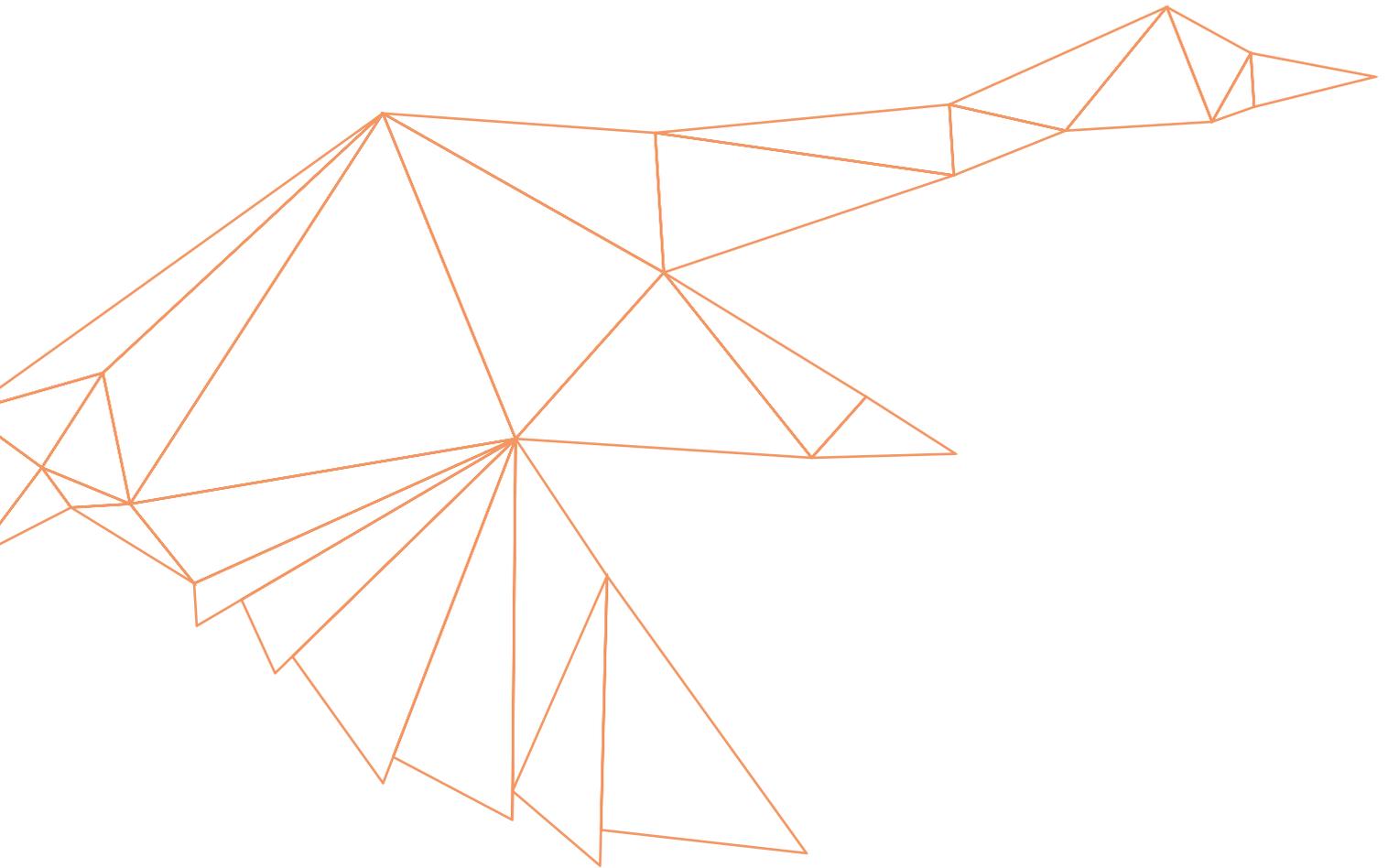


Developing additive manufacturing experts.



**Expert Programme**  
**Additive Manufacturing**  
**Application Engineer**

# Taking the lead AM Application Engineer

Expertise in additive manufacturing (AM) gives your organisation the edge in what is an increasingly competitive market. More than this, investing in AM skill development typically results in a substantial return on investment.

Our AM Application Engineer programme is no exception. It is the best course of its kind in the world and gives engineers the technical expertise they need to master AM, faster and better than ever before. We can make this claim because the value delivered by the programme continues to prove itself at one participating manufacturer after another.

Offered in partnership with two of Europe's leading universities in the field, Wolverhampton and SRH Hochschule Berlin, the depth and quality of the programme is well established. It enables engineers to develop and improve AM applications, implement serial production, optimise innovation and, not least, keep your organisation well ahead of its competitors.

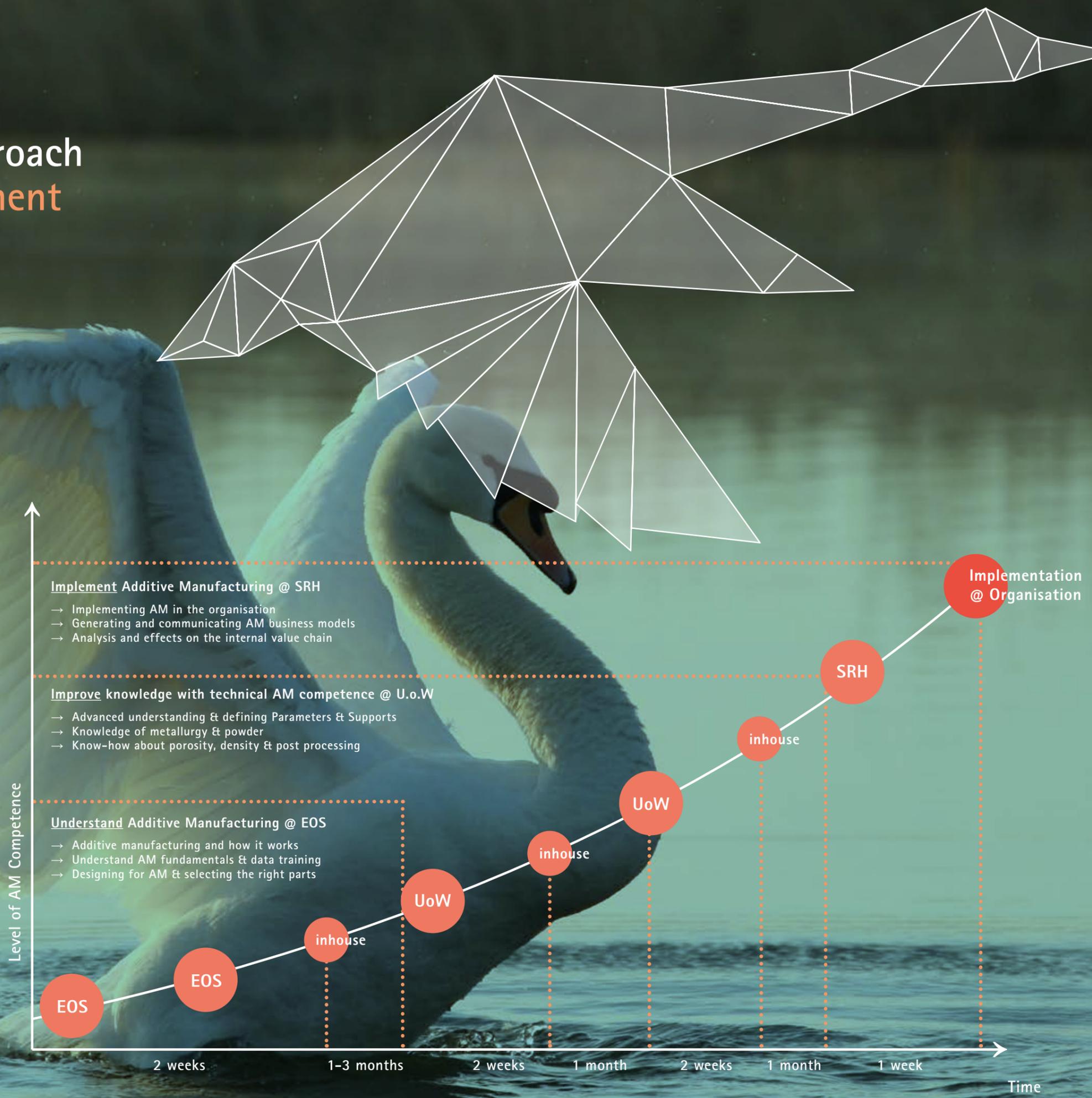
## Faster, better, scalable Programme benefits at glance

- Defined and proven concept on how to develop engineers to Senior Expert Application Engineers in Additive Manufacturing
- Rapid know-how development enabled by EOS and our highly skilled Partner Network, which includes the University of Wolverhampton and SRH Hochschule Berlin
- 2 weeks theory followed by 1 month of implementation is a highly effective way of transferring theoretical know-how to real life
- Highly scalable and repeatable - transfers the ability to implement knowledge within your company and across functions
- Save time and money, compared to conventional trial and error learning
- Use momentum of AM implementation to unlock the full potential of your employees

# A rapid approach AM enablement programme

Before the introduction of our Senior Expert Programme most engineers learned AM the old fashioned way, through trial and error. This method is expensive, time consuming, and no longer necessary. Our programme builds the skills required in a structured, time-efficient manner. Participants begin with the overall understanding of additive manufacturing, improve their know-how in process development and material characteristics and end with strategies to implement the technology in their organisation.

The diagram below illustrates how engineers achieve expert status in additive manufacturing in 5 months – and can be enabled to start adding value within just 7 weeks.



### Implement Additive Manufacturing @ SRH

- Implementing AM in the organisation
- Generating and communicating AM business models
- Analysis and effects on the internal value chain

### Improve knowledge with technical AM competence @ U.o.W

- Advanced understanding & defining Parameters & Supports
- Knowledge of metallurgy & powder
- Know-how about porosity, density & post processing

### Understand Additive Manufacturing @ EOS

- Additive manufacturing and how it works
- Understand AM fundamentals & data training
- Designing for AM & selecting the right parts

## Course leaders



**Monica Smith**  
EOS

Monica Smith is an Application Development Consultant at EOS GmbH. With a degree in Mechanical Engineering, she has focused her career in enabling organizations to achieve Additive Manufacturing production readiness. She gained her aerospace additive manufacturing credentials from multiple years in the industry where she was a project engineer responsible for additive development programs. She also focused her efforts in changing the conversation about design and educated those in her design community of effective design for AM rules. Her role at EOS GmbH is to develop education modules in order to train the next generation of AM experts.



**Dr Stefan Bindl**  
EOS

In 2005, Stefan Bindl graduated in aerospace engineering at the Technical University of Munich. He complemented his engineering studies with practical experience at several different research facilities focused on propulsion systems. He undertook his diploma thesis on at the Institute of Jet Propulsion at the University of the German Federal Armed Forces in Munich, and continued working there until 2015, first as research assistant until his doctorate in 2010, then as team leader for the engine test facility and finally, Stefan Bindl was professor for aircraft engine dynamics. In 2015 he joined EOS.



**Professor Mark Stanford PhD,**  
**BEng (Hons), CEng, MIET**  
University of Wolverhampton

As professor of advanced manufacturing technology at Wolverhampton, Mark Stanford is an international expert in the field of additive manufacturing. With this expertise in constant demand he works regularly with high-profile organisations, including Formula 1 racing teams, designing and producing parts that only a few years ago would not have been possible to produce.



**Mr Iain Lyall,**  
**BEng (Hons), FHea**  
University of Wolverhampton

Iain graduated at the University of Wolverhampton with a manufacturing degree in 2000, also publishing papers relating to advanced manufacturing systems. In 2007 Iain once again rejoined the University of Wolverhampton as principle technician for innovative product development assisting companies with manufacturability, product development and advanced manufacturing techniques. He is specialised in additive layer manufacturing has been a key researcher in the optimisation of precious metals for ALM, design for ALM and the integration of ALM into manufacturing systems.



**Professor**  
**Dr Michael Hartmann**  
SRH Hochschule Berlin

Professor Hartmann is a physicist and holds the degree of Doctor of Natural Sciences from the Humboldt University in Berlin. He was appointed to a professorship at the SRH Hochschule Berlin in 2002 and, today, his research interests include additive manufacturing, the applications of new materials for photovoltaics, and sustainable energy systems.



**Professor Dr Ian Towers**  
SRH Hochschule Berlin

Dr Towers is a professor in management at SRH Hochschule Berlin and holds an MBA from McGill University, Montreal, and a PhD from Carleton University, Ottawa. His academic work includes researching change management and organisational behaviour, especially in relation to technological change.

Register for the next  
AM Application Engineer  
programme now.

[amc@eos.info](mailto:amc@eos.info)

# Curriculum AM Application Engineer

## Week 1 @ EOS AM Starter

1. Introduction to Innovation with AM
2. AM Data Pre-Processing
3. Support Structure
4. Orientation
5. Data and Build Preparation

## Week 2 @ EOS AM Intermediate

1. Creative Methods for AM
2. Design for AM
3. Processing AM requests
4. Part Evaluation for AM

## Week 3 @ Wolverhampton AM Senior I

1. Refresher
2. Machine Operation
3. Support Structures
4. Design Guidelines

## Week 4 @ Wolverhampton AM Senior II

1. Powder Process
2. Process Optimization (Basic)
3. Post Processing
4. Part Validation

## Week 5 @ Wolverhampton AM Expert I

1. Refresher
2. Powder Management
3. Material Optimization
4. Process Optimization
5. Post Processing Advanced
6. Expert Tools

## Week 6 @ Wolverhampton AM Expert II

1. Refresher
2. Expert Case: Connection of learnings of week 3-5
3. Feedback + Next Steps for each student

## Week 7 @ Berlin AM Implementer

1. Introduction
2. Customer Value Mapping
3. Internal Value Chain Analysis
4. Internal Change Readiness Analysis
5. AM Fit
6. Develop Change
7. Develop AM Change Team
8. Develop Communication Plan
9. Dealing with Resistance
10. Post Change Analysis
11. Summary

EOS Additive Minds takes pride in partnering two of the world's leading academic authorities on Additive Manufacturing, University of Wolverhampton in the UK and SRH Hochschule in Germany.

## Internationally renowned specialists Our selected partners

### University of Wolverhampton



Guided by its motto 'Innovation and Opportunity', the University of Wolverhampton prides itself of giving students the opportunity to develop the knowledge, skills and confidence to thrive in the global economy. The excellence of its internationally orientated academic programmes is reflected in its graduate employment rate, which currently stands at around 95%. With over 180 years of pioneering education behind it, the University is now a global provider of entrepreneurial education.

#### Key facts:

- Offers over 500 Courses through its 18 schools and institutes
- EOS Partner for over 12 Years with deep know-how in AM Technology & Research
- Focus on Industrial Applied Research for broad customer base (e.g. Formula 1 Teams)
- Graduate employment rate of over 95%
- AM Technology Enabler

### SRH Hochschule Berlin



Located at the heart of Germany's capital, the SRH Hochschule Berlin is an international management university that offers students the opportunity to pursue Bachelor, Master and MBA degrees in German and in English. With a diverse student body from over 75 countries and partner schools around the world offering opportunities for exchange and dual degrees, SRH Hochschule Berlin embodies internationality.

#### Key facts:

- One of the leading private university carriers in Germany with 8 Universities of Applied Science in Germany
- Location in Berlin with students from 60 nations
- Focus on International Business Administration & International Management
- Top Ranking for International Orientation
- More than 60 partner Universities worldwide
- AM Implementation Enabler

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