

# Focus Day Industrial 3D Printing of Metal Spare Parts



## Organized by ISLA June 14<sup>th</sup>, 2018 Trieste, Italy

Additive Manufacturing (AM), also known as 3D Printing, is a game-changing technology. It can provide manifold benefits such as a shorter value chain, cost and time reduction, production of customized objects, and ways to completely new designs. Last but not least, AM can help reduce inventories by storing data in place of parts — a spare will be *printed* when (and where) needed. For a wide range of plastic parts, that vision has become reality. But additive manufacturing using metal alloys has lagged behind. Systems and materials (metal powders) are more expensive. Metal properties must meet casting and forging standards. Industry constraints

Hosted by



such as certifications and quality expectations have to be taken into account. Size limitations still exist. Post-processing is labor-intensive. Anyway, the technology improves rapidly and costs will drop in the near future. Sit and wait cannot be an option for innovative companies. This is why ISLA's member Wärtsilä started to explore potential applications of metal AM in its spare parts supply chain and the obstacles to overcome. Wärtsilä, a global leader in technologies and lifecycle solutions for the marine and energy markets, will host this Focus Day as an interactive forum to share on the matter of *Industrial 3D Printing of Metal Spare Parts* with peers from across industries.



### Agenda

9:00 – 9:30	Registration and morning coffee			
9:30 – 10:00	Welcome Note Opening remarks and introduction of participants	Ulf Nitz, Manager at ISLA, and Guido Barbazza, President & Managing Director, Wärtsilä Italia	<b>ISIA.</b> WÄRTSILÄ	
10:00 – 10:45	Review Status of Additive Manufacturing technologies with focus on industrial 3D Printing of metal parts	<b>Daniel Evers</b> Senior Manager at Barkawi Management Consultants	BARKAWI Management Consultants	
10:45 - 11:00	Coffee Break			
11:00 - 11:30	Project report  Digitizing and 3D printing of metal spare parts —  Objective and status of a strategic AM intiative	Rosario Sommonte Manager Strategic Purchasing at Wärtsilä	WÄRTSILÄ	
11:30 – 12:30	Technologies, Materials, and Solutions for Additive Manufacturing of Metal Parts			
	Hype meets reality — Additive Manufacturing in Series Production	<b>Sven Lauxmann,</b> CSO at APWorks (a 100% subsidiary of Airbus)	<b>AP</b> WORKS	
	Industrial 3D Printing using materials like stainless steel, nickel alloy, aluminium and titanium	<b>Giancarlo Scianatico</b> Regional Manager Italy at EOS	e-Manufacturing Solutions	
12:30 - 13:30	Lunch, and subsequently handing over of Personal Protection Equipments			
13:30 – 14:30	Factory Tour Production of 4-stroke engines for marine markets	Factory Tour Guides from Wärtsilä Italia	WÄRTSILÄ	
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14:30 – 15:30	Case Studies from the manufacturing industry		
	Parts Business 4.0 — On-demand parts production in a distributed network	Markus Lunz Senior Consultant at Siemens	SIEMENS
15:30 – 16:30	Afternoon coffee and open discussion involving all participants  Can cross-company collaboration help bring AM of metal spare parts to the next level?		
16:30	End of the Event		



#### Venue

The Focus Day »Industrial 3D Printing of Metal Spare Parts« is organized in cooperation with ISLA's member Wärtsilä. It will take place at the headquarters of Wärtsilä Italia in Trieste (Bagnoli della Rosandra, 334 — 34018 San Dorligo della Valle). Wärtsilä Italia is part of Wärtsilä Corporation, a Finnish company that is a leader in complete lifecycle power solutions for the global marine and energy markets. Coming from a long tradition of engine production, the Delivery Centre Trieste (DCT) is a modern multi-product factory today. The product portfolio assembled there comprises the families of 4-stroke engines as well as propulsion products. The facility in Trieste is one of the biggest sites of the Wärtsilä group. Located in the North East of Italy on the border with Slovenia, Trieste can be reached via the international airports of Venice (VCE, ~160 km) and Ljubljana (LJU, ~120 km). In addition to various domestic destinations, Trieste Airport (TRS) is connected to London Stansted (STN) and Munich (MUC).



#### Organizer

The Focus Day on Industrial 3D Printing of Metal Spare Parts is organized by ISLA. Our association is a network of professionals dedicated to Customer Service and Service Logistics. It was founded in Munich in 2003. As the association is not commercially driven, ISLA depends on the support of its members for the work it does. More than 50 companies from Europe, Israel, and the USA have now joined ISLA (see a few of them listed below).

Selection of ISLA members

New members, first and foremost OEMs running spare-parts and service-intensive businesses, are always welcome. For more information, please visit www.servicelogistics.info or contact us:

ISLA International Service Logistics Association e. V. Baierbrunner Strasse 35, 81379 Munich, Germany Phone +49-(0)89-749826-960, Fax -969 isla@servicelogistics.info

Executive Board: Stephan März (Chairman), Oliver Bendig, Joe DiPietro, Henry van der Schoot, and Magne Svendsen

















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#### Registration

Date, Signature

To register for the Focus Day »Industrial 3D Printing of Metal Spare Parts« in Trieste on June 14, 2018, please complete the below form. The fee for attending the Focus Day is 390 Euros; ISLA members pay a reduced price of 270 Euros. A special discount for academic researchers/students is offered upon request. Upon receipt of your registration, an attendance-fee invoice will be sent. As ISLA is based in Munich, the fee is subject to German VAT of 19% or the Reverse Charge Procedure.

Please return the completed form via fax to +49 (0)89 749826-969 or e-mail to isla@servicelogistics.info

Registration for the Focus Day includes access to the meeting, and all meals, snacks and beverages during the sessions and breaks. A meeting handout and an event documentation (as pdf download) are included as well. Attendees are responsible for their own travel expenses. ISLA reserves the right to make changes to the program as stated in this document. All cancelations received up to 10 days prior to the event are free of charge. Cancelations received after this date will be eligible for a 40% refund of the attendance fee. However, a substitute may be delegated at any time. ISLA itself will only cancel the event due to force majeure, insufficient number of attendees, or an unforeseen incident beyond ISLA's control that makes it impossible to hold the event. Registration fees will be refunded. No further liability is accepted.

that makes it impossible to hold the event. Registration fees will be refunded. No further liability is accepted. Your contact details may be passed on to ISLA's event partners who wish to communicate with you offers related to your business activities, unless you do not wish this to happen: 

Please do not pass my contact details to any third party ☐ Mr ☐ Mrs ☐ Ms Title, first and last name \_\_\_\_\_ Company / Institution \_ VAT-ID-N° (for non-German Europe only) Position / Job Title \_\_\_ Address Postal Code \_\_\_ \_\_ City \_\_\_ \_\_\_\_\_ Country \_\_\_ \_\_ Mobile \_\_\_ \_\_ E-Mail \_\_ Accommodation Pre-event program Please check here if you will be arriving on June 13, On June 13, 2018 all event participants 2018 and would like to stay at the 4\*\*\*\* Urban Hotel are invited to dinner at a local restau-Design in Trieste where a block of rooms has been rant in downtown Trieste. Please check here if you would like to booked at a special rate. Rooming is not included in the event fee. Price per room of 110 Euros per night join us on that evening. Dinner will (incl. breakfast + free Wifi) is to be paid by yourself. start at 8 p.m.