

THE NEED OF A CONNECTED ECOSYSTEM TO HARVEST THE POTENTIAL OF AM IN THE ENERGY SECTOR

C. DE BERNARDI*

* ConocoPhillips
925 N Eldridge Parkway, Houston, TX, U.S.A.
Carlo.DeBernardi@conocophillips.com www.conocophillips.com

ABSTRACT

In recent years, AM has begun to play a significant role in the industrial sectors due to its flexibility, efficiency and sustainability. Moreover, the rapid technological improvements in terms of new printers and materials make its use more and more attractive in different fields.

The main advantages of this method include the possibility to design and create personalized and/or optimized components, to print a complex product in one single assembly, and to produce less waste material.

However, within the Energy sector, it is evident the weakness if not even the lack of the DfAM and more in general of engineering services that act as a bridge between the traditional manufacturing and the additive manufacturing. Therefore, the purpose of this invited session is to emphasize the importance of creating a connected ecosystem to fully harvest the potential of AM in this sector. Ecosystem means a network of AM companies for analyzing current designs and converting them into AM-effective models, equipment manufacturers for our sector (OEMs), contract manufacturers and end users. Topics of interest include, but are not limited to: compliance with applicable Industry Standards (i.e. API, ASTM, ASME etc.), qualification of AM components, AM materials performance in corrosive/sour service environments, AM scalability.