



# FEMTOSECOND LASER DIRECT WRITING AND TWO PHOTON ABSORPTION 3D PRINTING OF NOVEL INTELLIGENT FIBER OPTIC DEVICES FOR NEXT GENERATION TELECOM NETWORKS STUDIED AND DEVELOPED WITH REDUCED OPEX THROUGH ADDITIVE MANUFACTURING TECHNIQUES

## Introduction

Over the last decade it has become clear that fiber to the home (FTTH) is an enabler to improve the way people live and work. Broadband services will facilitate a number of applications like e-Government, e-business, e-health and teleworking which will dramatically change the way people live today. Additionally, by reducing commuting, FTTH can potentially have a large impact on environmental/climatic problems by reducing CO<sub>2</sub> emissions substantially.

When looking at the economies with the highest household penetration of fiber in Europe, countries like Germany, France, Spain and Belgium have not reached very far. It is clear that in order to speed up the roll out of fiber to the home, the fiber optic industry should continuously innovate to improve connectivity solutions and network elements.

## Objectives

The objective of the FANTOAM project is to exploit the versatility of photonic 3D printing methods in the development phase and for low profile production. New fiber connectivity applications will be investigated together with reconfigurable waveguide devices for implementation in next generation fiber networks.

## Consortium

- Commscope Connectivity Solutions
- ChemStream
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- B-Phot

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