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ACTPHAST – towards a Photonics Innovation Hub for the Digital Transformation of European Industry

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There is a real sense of urgency for digital transformation of European industry as the relative contribution of industry to the EU economy is declining. The European economy has lost a third of its industrial base over the past 40 years. Industry 4.0 presents a real opportunity to turn the tide in Europe's favour, with a particular focus on SMEs and entrepreneurship which harness Europe's excellent scientific base. Innovation and digitization go hand-in-hand as fundamental drivers of future prosperity. At the heart of this digital revolution lies Photonics.

Photonics – the science and technology of harnessing light - is everywhere around us now. Yet we are only at the beginning of what is possible. As a Key Digital Technology targeted by the EU, photonics is essential to the functioning of the new applications which are powering Industry 4.0 and which are needed to address our major societal challenges. The outcome of the new digitization paradigm Industry 4.0 for European industry – incorporating both the photonics and “photonics-enabled” end user industries - will depend on European companies, the vast majority of which are SMEs, being ready and capable of seizing the opportunities afforded by digitization through innovation with photonics, faster and better than their global competitors.

Unfortunately for most companies, especially SMEs, they are faced with significant obstacles because they don't have the in-house expertise in photonics, or easy access to cutting-edge photonics technologies, to properly explore the innovation potential for their products. This is where ACTPHAST comes in. The ACTPHAST model is unique in a European context in that it is set up to provide a single entry point into a fully integrated prototyping supply chain across the broad spectrum of photonics technology platforms. ACTPHAST makes this cutting-edge photonics technology and expertise available in a subsidized format to any European company – with a particular emphasis on SMEs – for the purposes of collaborating on photonics innovation projects which will have a substantial impact on the companies' business growth in terms of new revenues and job creation.