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**Abstract Submitting Form**

<b>Conference</b>	<u><a href="#">9<sup>th</sup> Annual International Conference on Industrial, Systems and Design Engineering</a></u> <u><a href="#">21-24 June 2021, Athens, Greece</a></u>
<b>Title of Paper</b>	Flow chemistry as innovative approach for sustainable formulations
For more than one author, please copy and paste the following eight rows for each additional author.	
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<b>Abstract</b>	
<b>Please try to limit your abstract to less than 500 words (about 30 lines)</b>	
<p>IN FLOW is an innovative cross-border R&amp;D project involving 4 European cutting-edge partners in the fields of biochemical product formulation, characterization and engineering. The main R&amp;D challenge of IN FLOW is to introduce new formulation technologies that allow fast and cheap degradable packaging of e.g. drugs in pills or creams. Our applied methodologies will allow companies to create novel high potential products for e.g. health- and personal care industry. The knowledge and technology that will be developed in IN FLOW provides public and private actors full advantages to fasten market introduction of their products. Our IN FLOW technology makes use of sophisticated in-house designed devices and know-how to create novel product formulations of (bio)degradable carriers loaded with ingredients with high efficiency. These carriers can be used as compounds in end-products like pills with direct applicability in healthcare, nutraceutical, cosmetic and pharmaceutical industries.</p> <p>Precisely, the IN FLOW project focused mainly on the preparation of drug loaded microparticles made of degradable (co)polymers already successfully applied for biomedical applications, such as polycaprolactone or polylactide but also made of an emerging class of degradable and biocompatible polymers, namely polyphosphoesters. The selected microfluidics technology presents undeniable advantages for the formulation of drug loaded microparticles such as (i) synthesis in continuous flow avoiding possible fluctuation in composition between different production batches, (ii) very low polydispersity in size of the drug-loaded microparticles, (iii) high encapsulation efficiency, (iv) relatively low energy consumption, ...</p> <p>Via a market-driven approach, defined by private end-users (SMEs) through the open technology platform, IN FLOW will create innovative products and technologies. By combining unique Meuse-Rhin Euregional know-how, technologies and state-of-the-art infrastructures in an open innovation platform, IN FLOW proactively creates synergy for higher scale capacity for all actors.</p>	
<b>Keywords (at least three)</b>	Microparticles, Formulation, Microfluidics

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