



Dear Colleague,

Re: information request for the European Roadmap of Process Intensification

Recently, the Dutch Chain Efficiency Platform in collaboration with the Working Party on Process Intensification of the European Federation of Chemical Engineering (EFCE WPPI), Process Intensification Section of DECHEMA/VDI (ProcessNET) and several other national organizations has initiated creation of the European Roadmap of Process Intensification (EUROPIN). The roadmap will play an important role in the definition of the short and long term R&D agenda in the field of Process Intensification.

Obviously, one of the most important elements on which the roadmap will be built is the information concerning the commercialization status of the existing PI-technologies. In order to get reliable information, we currently approach leading experts in the specific fields, asking them for their input. We are particularly interested in the commercial applications of PI-technologies in the (petro)chemical, food and pharmaceutical sectors.

You have been identified by the roadmapping team as one of the leading experts or technology providers in the field of one or more PI-technologies. We should therefore greatly appreciate your contribution to the Roadmap.

Enclosed please find a reply form concerning the commercial applications of a specific PI-technology. We would be very much obliged if you could fill in the above form for each industrial application known to you and return the forms to us. The information given should also concern applications in the realization stage (plant construction, revamping), in which case we kindly ask you to fill in the <u>expected</u> date of commercial start-up of the new technology. If the PI-technology you represent has already been broadly applied in industry (as it is for example in the case of some mixing or heat-exchange equipment), we kindly ask you to report only on a few most representative examples of applications in each of the three sectors concerned.

Should you be in possession of any information concerning commercial applications of other PI-technologies than the one you specialize in, we would also greatly appreciate your input. In a separate attachment you will find the entire list of PI-technologies included in the Roadmap.

We are obviously aware of the confidentiality issues related to the requested information. Therefore we ask you to be as specific as you can, but not to enter information that could harm your company, or companies you need to protect, when such information would be distributed. Stating a type of company (e.g. a fine chemical company, a petrochemical company, a food company, etc.) and/or a general type of process (e.g. large-scale hydrogenation process, small-scale polymerization process, fermentation process, etc.) will sometimes have to suffice for confidentiality reasons. Obviously, should you wish for any reasons to have your company name explicitly quoted in the Roadmap, we will be pleased to do so. Quite important to us is the reliability of the information given, so please report only the information you feel very confident about.

We expect that filling in the enclosed forms will not take you more than one hour. We realize very well that providing answers to all the questions in the reply form may not always be possible. Therefore we ask you to fill in only the information that you can fill in without any extensive data search. Partial information or brackets instead of exact numbers will also be greatly appreciated.

On our part, we will acknowledge you among the contributors in the final Roadmap document which we expect to publish at the end of 2007. We will also send you the compiled data concerning "your" PI-technology and we will obviously provide you with a copy of the final Roadmap document.

The information we request is of crucial importance for the definition of the necessary R&D effort in Process Intensification in the coming years. Therefore, if you for any reason are not able to fill in the form, we kindly ask you to redirect us to some other expert(s) in the field who could help us further.

We hope for your positive response to our request and look forward to your reply.

Many thanks in advance and best regards,

Prof. Dr. Ir. Andrzej Stankiewicz Chairman of EFCE WPPI, Scientific Manager of EUROPIN

Ir. Willem de Vries Secretary of Chain Efficiency Platform

Dr. Hartmut Schoenmakers Secretary of EFCE WPPI, Member of Steering Committee, Process Intensification Section of ProcessNET (DECHEMA/VDI-GVC)