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Joint Industry Projects, commonly known as JIPs, are growing in popularity in the hydrodynamic field. And as Henk Valkhof, Senior Consultant Resistance and Propulsion notes, the trend is welcomed by MARIN.

Joint Industry Projects - collaboration is the key

Henk Valkhof: "JIPs provide an excellent and cost-effective means to improve existing knowledge."

When you look at what we do at MARIN, we made a sub division between fundamental research, commercial work and JIP work. For the future we can say that the commercial level will remain the same and that fundamental research will also stay at current levels. But JIP projects are growing, and this upward trend is very interesting.

Valkhof says that particularly in the European ship-building industry the demand to co-operate is increasing: "People in EU countries are acutely aware of the present world situation in respect to competitiveness and they have to combine forces - and JIP projects are created as a result. Therefore there's a noticeable trend in Europe to co-operate in order to further improve existing knowledge. JIPs provide an excellent and cost-effective means to this end - here MARIN can and wants to assist."

Trend to co-operate

However, this trend is by no means exclusive to Europe. He comments: "Recently we have been in Japan at a major exhibition - and we also visited some of our clients and gave presentations, and in both cases we noticed a lot of interest in podded

propulsion and in the possibilities offered by joint projects on pod technology. Hence, in the Far East, the USA and other countries as well, the trend to co-operate through JIPs is growing."

Wake measurements

One very important JIP currently in the planning stage will have its genesis in the Netherlands, but is likely, he predicts, to become pan European in scope. The project is looking at full-scale wake measurements - also to validate viscous flow codes. Says Valkhof: "This has all to do with the flow around the aft body of the ship which has great effect on the propeller design. If you can predict this with full-scale fluid dynamics, there is a lot you can do to improve design. At MARIN, we have substantial model test data on wake distribution, and numerous viscous flow codes - and we claim that our PARNASSOS suite is one of the best in the world in this field. To validate these codes with the full scale is still the missing link." He concludes: "This is especially relevant for the dredging industry, whose recent trend to build very large suction hopper dredgers, with a big payload increment, implies that they are pushing the hydromechanical limits." 