

**FP7 INFORMATION DAYS for Research PPPs on 11+12 July 2011**

**Template project ideas**

<b>Contact person</b>			
<b>Name</b>	<b>Dr.-Ing. Hans Bräunlich</b>		
<b>Organisation</b>	<b>Fraunhofer Institute for Machine Tools and Forming Technologies IWU Chemnitz / Germany</b>		
<b>Address</b>	<b>Reichenhainer Str. 88, 09126 Chemnitz, Germany</b>		
<b>Telephone</b>	<b>+49 371 5397 1210</b>	<b>e-mail</b>	<b>hans.braeunlich@iwu.fraunhofer.de</b>
<b>Project information</b>			
<b>PPP</b> ■ <b>Factories of the Future</b> □ <b>Energy-efficient Buildings</b> ■ <b>Green Cars</b>			
<b>Topic/Title</b>	<b>Partial Forging of Cast Components</b>		
<b>Project idea, objectives</b>	<ul style="list-style-type: none"> <li>• New manufacturing technology for components with complex 3D-geometries and very large difference between billet shape and final shape</li> <li>• Casting of base geometry with subsequent forging of designated component sections with specific property requirements</li> <li>• Elimination of multiple forging operations and greatly increased material utilisation</li> <li>• Examples: knuckle, crank and lever shaped components</li> <li>• Integration of conventionally separated casting and forging industries and utilization of advantages of both technology branches</li> <li>• Application of innovations from casting, forging and materials sciences</li> <li>• Hybrid components with both cast and forged material structures</li> <li>• Considerably shortened processing chains with significantly lower resource and energy consumption at increased economic efficiency</li> </ul>		
<b>Partner search description</b>			
<b>Type = Company/SME/Research organisation/university</b>			
<b>+ desired skills/knowledge</b>			
<b>Partner 1</b>	<b>Company / (SME) - end user of complex forged/cast products: automotive industry, aviation industry, medical engineering industry</b>		
<b>Partner 2</b>	<b>Company / (SME) - Manufacturer of complex forged/cast products: casting+forging companies, supply industries</b>		