

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

Project ideas

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Project information			
PPP X Factories of the Future			
Topic/Title	s-pactool (development of design tools based on newly available sensor data in microelectronic packaging)		
Project idea, objectives	<p>Background: New materials in assembly technology, the third dimension in assembly, new sandwich structures, the demand for higher flexibility and customization, the new challenges of material interfaces due to the increasing density of electronic components are faced with the requirement of high efficiency and quality manufacturing processes.</p> <p>All these components and devices are placed in environments of extreme temperature, moisture, condensation, pollution and as well as high mechanical vibration loading and aggressive chemical conditions leading to damage and corrosion of conventional (micro)electronic packaging and materials.</p> <p>Project idea: The aim of the project idea is the development of a tool of design rules based on a new generation of miniaturized multisensing sensors which can be integrated artefactfree in the assembly process chain, which can analyse microstructural behaviour of materials and their interaction with the production process in real time and under environmental conditions.</p> <p>Objectives/Goal:</p> <ul style="list-style-type: none"> • Higher cost-efficiency/quality of the assembly chain by supervision, monitoring and continuous tuning of process parameters • Quality of assembly design by embedded microsensors with multisensing features from the early phase of product development • Design tools for the assembly of electronic boards for support of customization strategies • Exploiting new materials, sandwich structures by involving integration of micronanosensor technologies 		
Partner search description			
Type, desired skills/knowledge			
Partner 1 Company, SME	assembly, packaging technologies, Printed Circuit Board, 3D integration, conformal coating, encapsulation, MID		
Partner 2 Company, SME	end user		
Partner 3 University	modelling & design, vibration sensor, environmental simulation		