


Name of the Partnering Organization:	<b>Sincrotrone Trieste S.C.p.A. -Elettra</b>	
Location (town, country):	Basovizza - Trieste - Italy	
Web site address:	http://www.elettra.trieste.it	
<b>Brief description of the organization</b>		
<p>Elettra, the Italian 3rd generation synchrotron radiation facility is a multidisciplinary research laboratory in <a href="#">AREA Science Park</a> in Trieste, hosting 23 beamlines and 10 supporting laboratories. Synchrotron light is an indispensable tool in many research areas including physics, chemistry, materials science, biology and crystallography and enables scientists to have access to cutting-edge analytical techniques. Elettra is part of Trieste scientific environment with world-level institutions such as the International Centre for Theoretical Physics (ICTP), International Centre for Genetic Engineering and Biotechnologies (ICGEB), International School for Advanced Studies (SISSA), the TASC laboratory of IOM-CNR and many others. Major investment at present is FERMI@Elettra a Free electron laser facility, collaborations which will provide fs photon pulses in the nm wavelength range with unprecedented brightness. It will open new research frontiers and revolutionize many areas of science from solid state physics to biology and provide excellent environment for development and know-how transfer. Elettra is open internationally for service and partnership and offers a stimulating and competitive environment to researchers from all over the world. In 2010, Elettra hosted 999 users in 2010, 385 were Italian and 514 from EU and non-European countries. The research results obtained at Elettra produce annually more than 300 publications in international scientific journals.</p>		
<b>Description of the research group</b>		
<p>Elettra has one of the most extensive programs in X-ray electron spectroscopy (XPS) and XPS microscopy in Europe. The expertise and achievements in x-ray spectroscopy and microscopy have been worldwide recognized and the following relevant beamlines are of particular interest for the EAgLE proposal: <b>Nanospectroscopy</b> - The X-ray Photoelectron Emission Microscope XPEEM is used for studying the structural, electronic, chemical, and magnetic properties of surfaces and interfaces, finding application in diverse fields such as catalysis and magnetism, thin-film growth and many domains of material science, therefore is very much in line with the goals of EAgLE project. <b>ESCA microscopy</b> -this beamline implements scanning photoelectron microscopy (SPEM), a technique for investigations of laterally heterogeneous materials. <b>SuperESCA</b> – this beamline is used for i) high energy resolution soft X-rays core level photoemission; ii) analysis of surface reactions by Fast-XPS; iii) determination of the atomic structure of surfaces, of the orientation of adsorbed molecules of thin layers by High Energy Resolution Photoelectron Diffraction; iv) absorption studies (e.g. NEXAFS).</p>		
<b>Selected list of relevant publications</b>		
<p><b>Real-Time X-Ray Photoelectron Spectroscopy of Surface Reactions</b>, A. Baraldi, G. Comelli, S. Lizzit, <b>M. Kiskinova</b>, G. Paolucci, <i>Surf. Sci. Reports</i> 49 (2003) 169.</p> <p><b>Spectromicroscopy for addressing the surface and electron transport properties of individual 1-D nanostructure and their networks</b>, A. Kolmakov, S. Potruli, A. Barinov, T.O. Mentel, L. Gregoratti, M. A. Niño, A. Locatelli, <b>M. Kiskinova</b>, <i>ACS Nano</i> 2, (2008) 1993.</p> <p><b>Imaging and Spectroscopy of Multiwalled Carbon Nanotubes during Oxidation: Defects and Oxygen Bonding</b>, A. Barinov, L. Gregoratti, P. Dudin, S. La Rosa, <b>M. Kiskinova</b>, ", <i>Adv. Mater.</i> 21, (2009), 1916.</p>		
<b>Key researcher's CV</b>		
<p><b>Maya Kiskinova</b> -Senior Scientist - Research Project Coordinator at Elettra.</p> <p>Over 230 articles in reviewed journals, 13 invited reviews and articles, one book, one book chapter and 2 U.S. Patents, over 100 invited talks and plenary lectures at International Congresses, Conferences, Symposia. Her scientific interest in line with EAgLE project: i) structural, electronic and magnetic properties of ultra-thin films and interfaces; ii) properties and stability micro- and nano-structured materials; iii) development and application for characterization of complex nano-materials and soft matter spectro-microscopic and imaging methods using soft x-ray synchrotron and free electron laser facilities.</p>		