ITALIA
Agenzia per la promozione all'estero e l'internazionalizzazione delle imprese italiane
(in gestione transitoria)

I T A L Y D A Y

ABSTRACT TABLE OF PROJECT PROPOSAL

PROJECT Nr. 23

SECTOR:	Metal cutting technologies
PROJECT IDEA IN A HEADLINE:	Innovative Shop Floor Control
INNOVATIVE POINTS:	Non linear process control
POTENTIAL BUSINESSES AND APPLICATION FIELDS:	Manufacturing planning and process processes
CHARACTERISTICS OF POTENTIAL PARTNERS:	European SME and research institute
EU PROGRAMMES TO PARTECIPATE:	FoF - Factory of the Future program
BRIEF PROJECT DESCRIPTION:	This project aims at developing an innovative Shop Floor Operating System supporting the Non-linear Process Planning (NPP) implementation in SMEs that will drastically change the current concept of sequential off-line process planning, going beyond currently established methodologies such as traditional CAD-CAM chains. This Shop Floor Operating System will enable multidirectional information flow, both in the vertical direction (from design to shop floor and viceversa) and in the horizontal direction (from one shop floor function to any other), making it possible to continuously trace and store changes in the work piece/process/system state. Shop Floor Operating System will enable to capture all the part program improvements and adjustments made by the operators in the process execution phase that are untraced and lost, although representing an exceptional valuable knowledge asset for SMEs. Besides, the Non-Linear Process Planning concept will enable to take off-line only strategic decisions regarding the process plan alternatives, the part loading in the system and the quality control practices, while shifting operational decisions close to the process execution phase, where the complete state of the system is visible and opportunistic decisions can be taken.