ANTI-COUNTERFEITING TAGS BY LITHOGRAPHY AND OPTICAL READING SYSTEM

Innovations and Benefits - New anti-counterfeiting/tracking technology. A pattern is transferred as an invisible image onto thin tags, which in turn can be put on or embedded in objects to be protected or traced. A compact device (portable or remote) reads the invisible image and checks the authenticity and the origin of the tag.
The writing and reading complexity can be tailored on customer needs up to a tag virtually impossible to be cloned.

Uses - Transparent tags with the invisible pattern can be attached to any object and allow to check its authenticity and origin, depending on the information embedded into it.

Past and Present Activities - The anti-counterfeiting tags have been successfully applied to electronic components, substrates for credit cards, artworks, and to track radioactive substances. Portable reader systems have been made and tested, which can be connected to mobile phones with a camera, thus allowing a remote control.
A feasibility study for use on watch glasses and diamonds has been started. Double layer tags have been designed to further increase the security and replication impossibility.

	RESEARCH TO PROVE FEASIBILITY		TECHNOLOGY DEMONSTRATION		SYSTEM TEST, LAUNCH & OPERATIONS
BASIC TECHNOLOGY RESEARCH	TECHNOLOGY DEVELOPMENT		SYSTEM/SUBSYSTEM DEVELOPMENT		
TRL 1	TRL 2	TRL 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9

TECHNOLOGY READINESS LEVEL