

TAIPRO Engineering

Micro assembly for industrial market

Présentation: M. Saint-Mard

TAIlored microsystem improving your **PRO**duct

TAIPRO ENGINEERING SA

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Scope

- TAIPRO Engineering's objectives
- Microsystem definition
- TAIPRO's activities
- Microsystem prototyping summary
- Industrial market (potential applications)
- Conclusions

TAIPRO Engineering's objectives

Taipro's goal is to give a high level support to identify and respond to needs of industrialists by:

- Proto/demo of tailored microsystems for specific applications.
 - Proof of concept studies (design & and proto/demo fabrication)
 - Fabrication of very small series (~ 100 assemblies/year) and support for larger series in a first step.

Microsystem definition

Microsystem – Smart sensor

Microsystem is a device including:

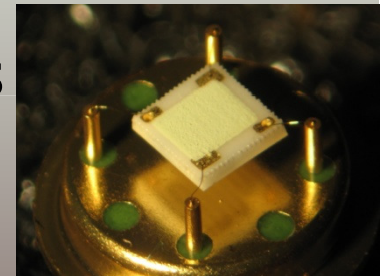
- sensors
- Electronics and firmware
- Micro actuators, receptors and/or emitters (interaction with external world) ;
- Power supply



Ex de μ systems

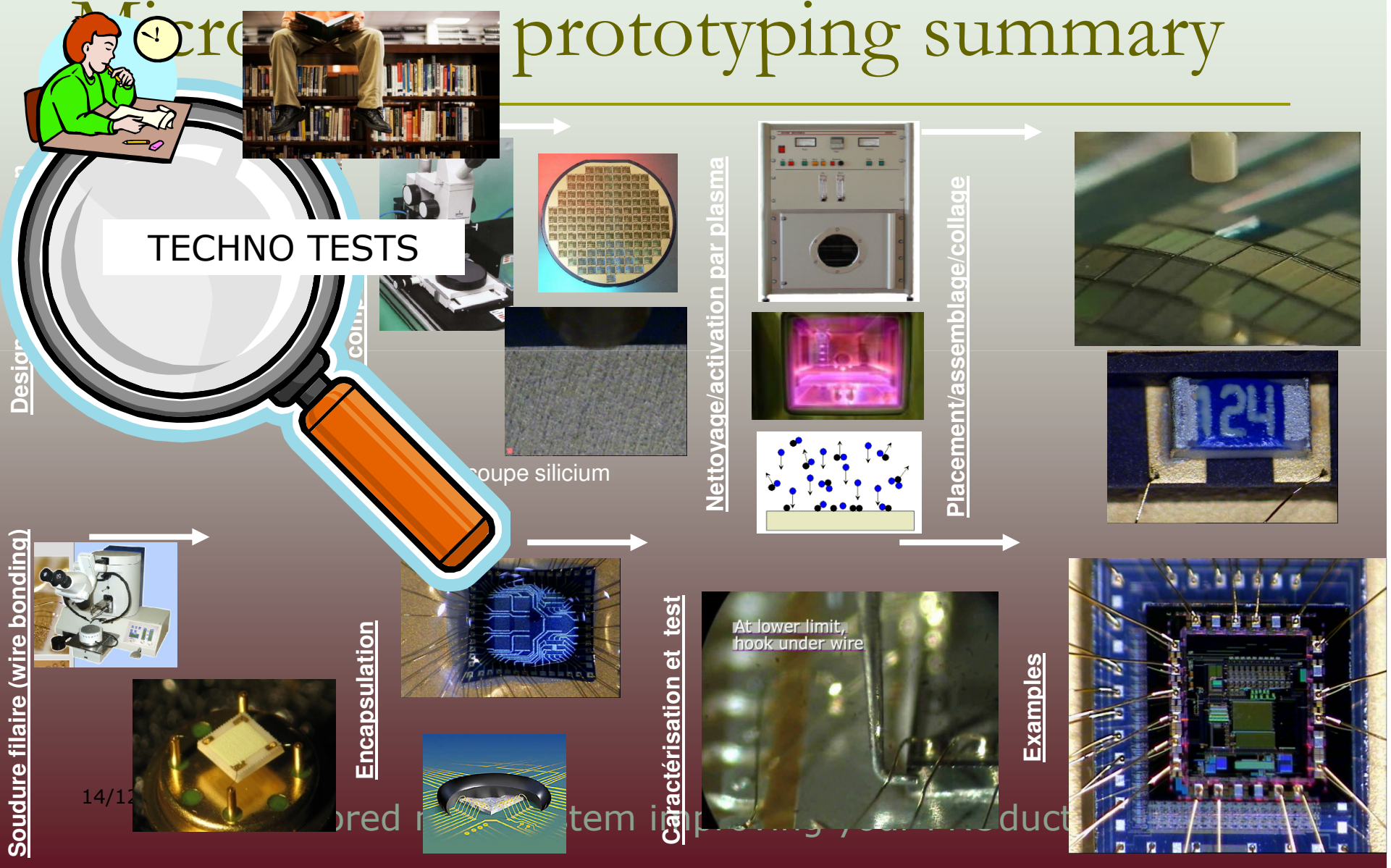
TAIPRO's activities

- TAIPRO Engineering focuses its activities on innovative micro assembly (packaging) of existing sensors and microelectronic COTS (Components Off The Shelf) to perform customized solutions with new functionalities for industrial applications:
 - Tailored development project for in situ proof of concept demonstration,
 - Packaging/micro assembly consultancy and pre-production series which need specific support before manufacturing,
 - Training on specific packaging and testing equipment,

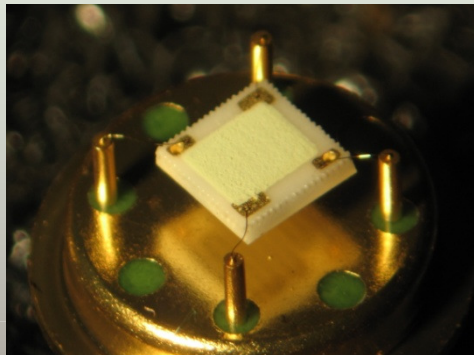


Exemple

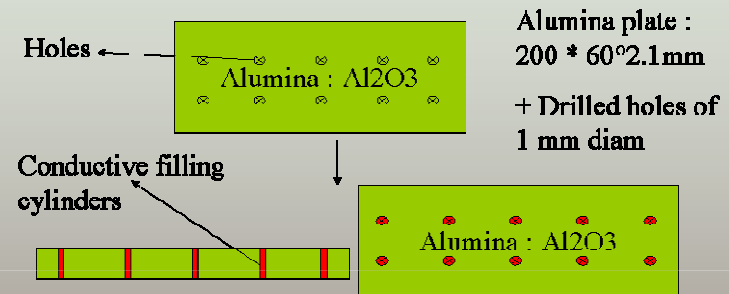
Micro prototyping summary



Industrial market (potential applications)



Flying sensors

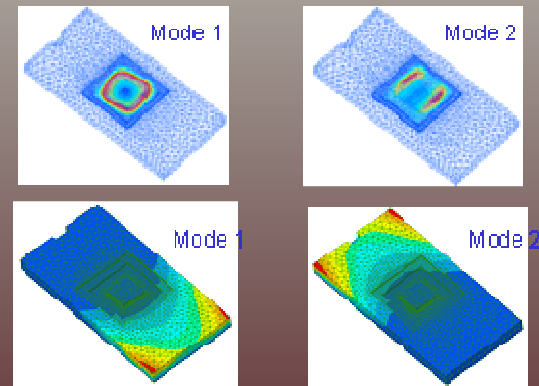


Insert/bracing conductive cylinders in the holes (diam 1 mm)



Alumine plasma huile.avi

Fluid manipulation



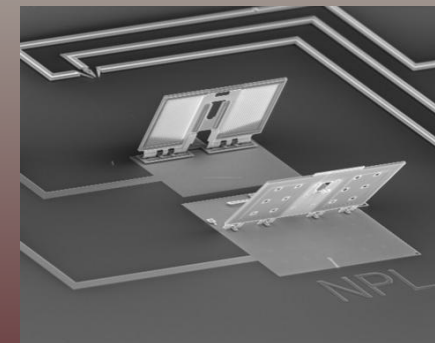
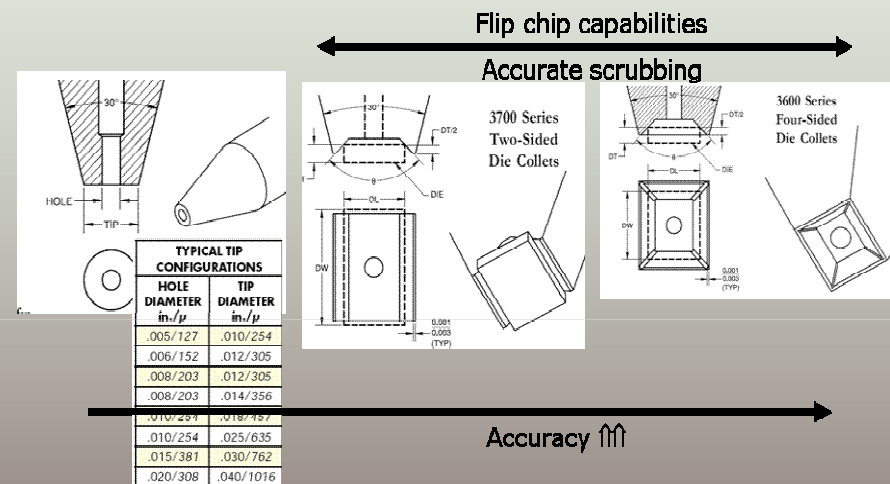
External behaviour – with and without glob top

Industrial market (potential applications)

Micro assembly guidelines

Before (or in //) designing your components/devices:

- Think about modelling (i.e. electrostatic effect)
- Think about micro manipulation itself (i.e. which tools exist to manipulate it)
- Think about techno tests (does it work)



How to manipulate?

Conclusions

- TAIPRO Engineering can design and build your **TAI**lored microsystems demonstrators or prototypes to improve your **PRO**duct or **PRO**cess. TAIPRO Engineering also can help and guide industrialists through micro assembly or microsystems production:
 - Tailored development project for in situ proof of concept demonstration.
 - Packaging/micro assembly consultancy and pre-production series which need specific support before manufacturing.
 - Training on specific packaging and testing equipment.