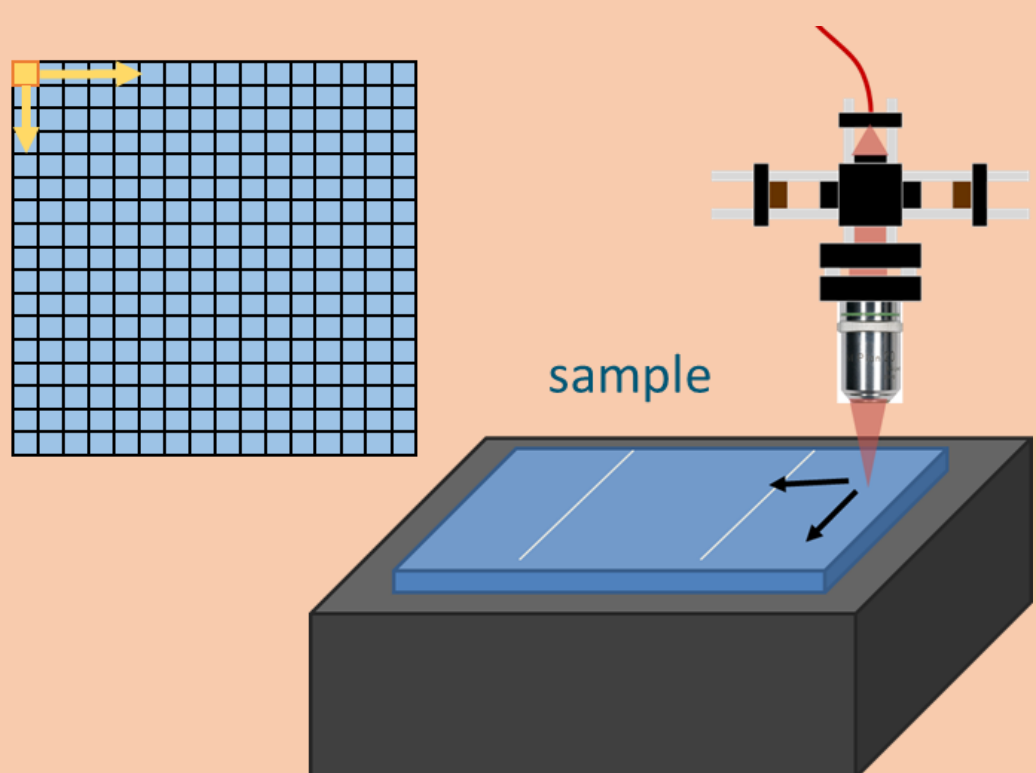


Aim: Perform multidimensional measurements **SMART** by automation with validated uncertainty

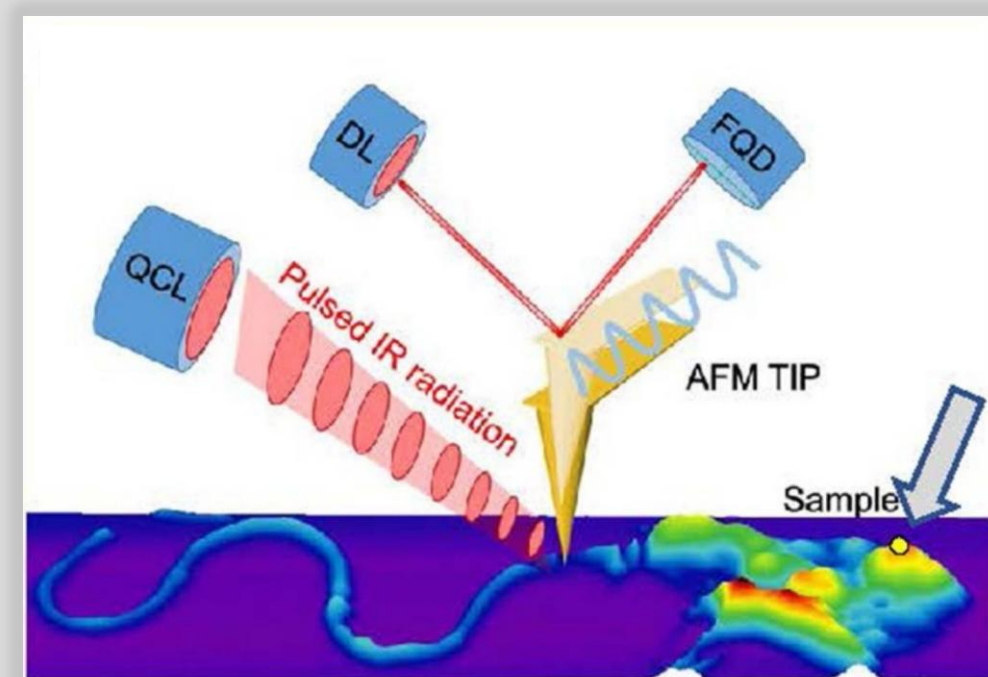
Specific Needs

Improve quality control



Limited resolution, speed and signal to noise ratio for photocurrent maps

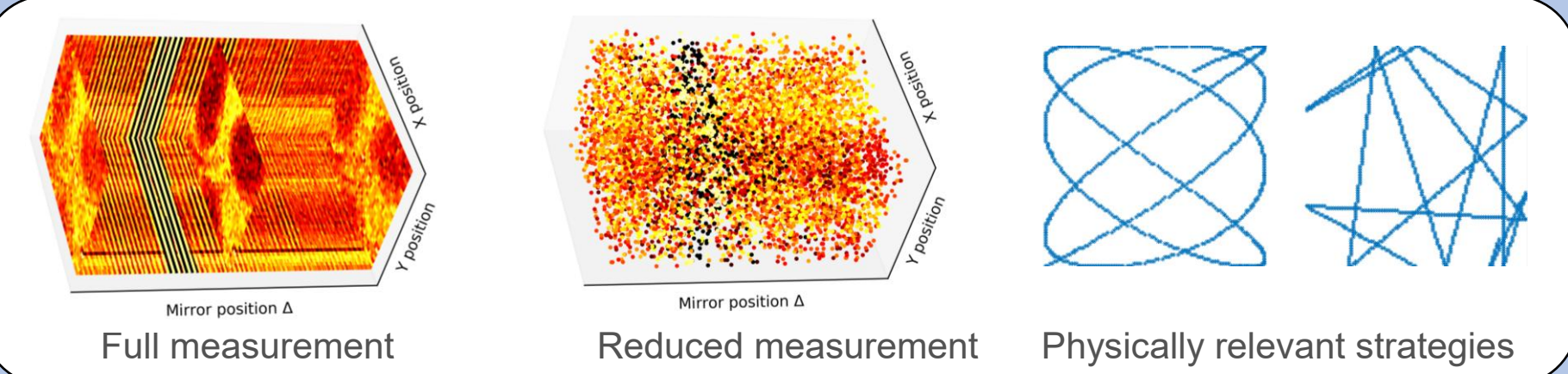
Reduce measurement times



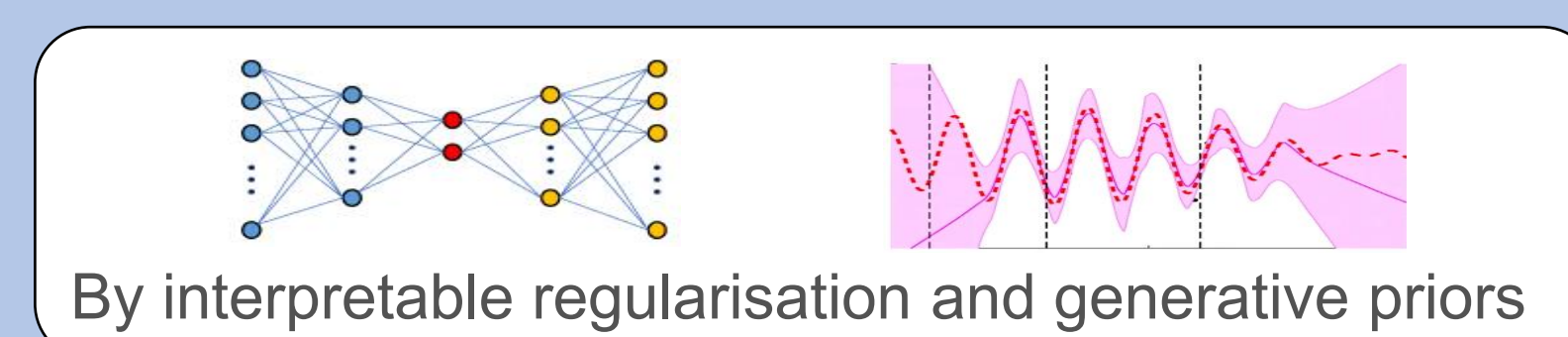
Costly and inherently sequential

Tools and Techniques

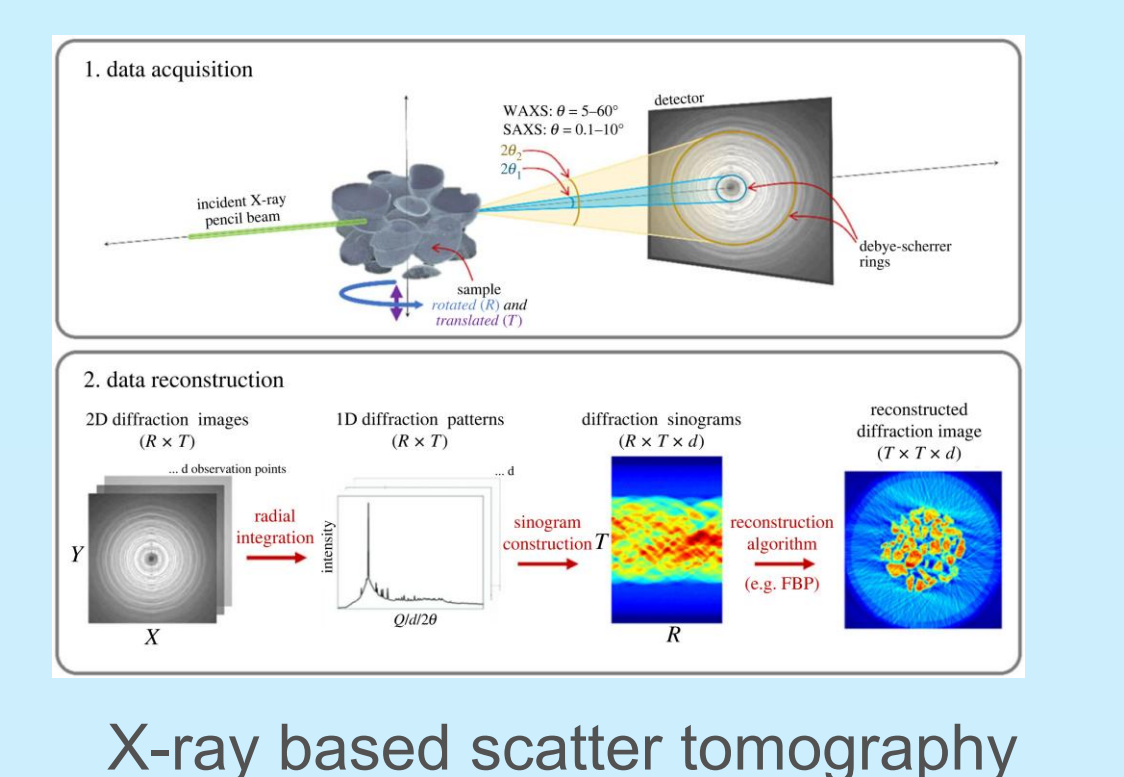
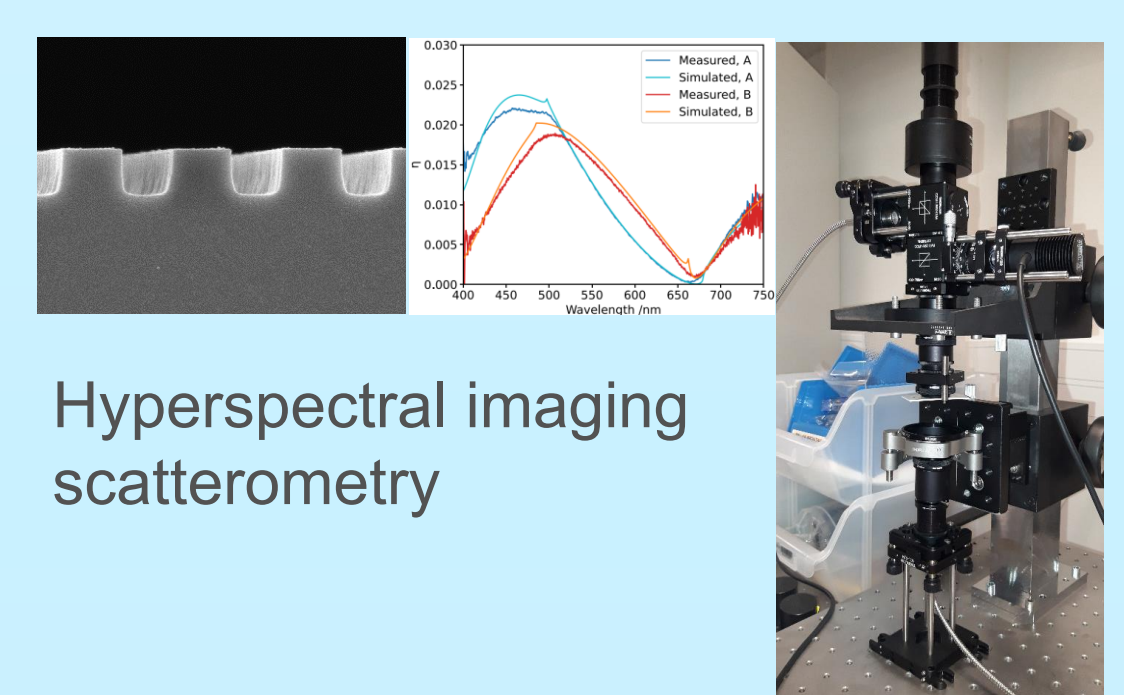
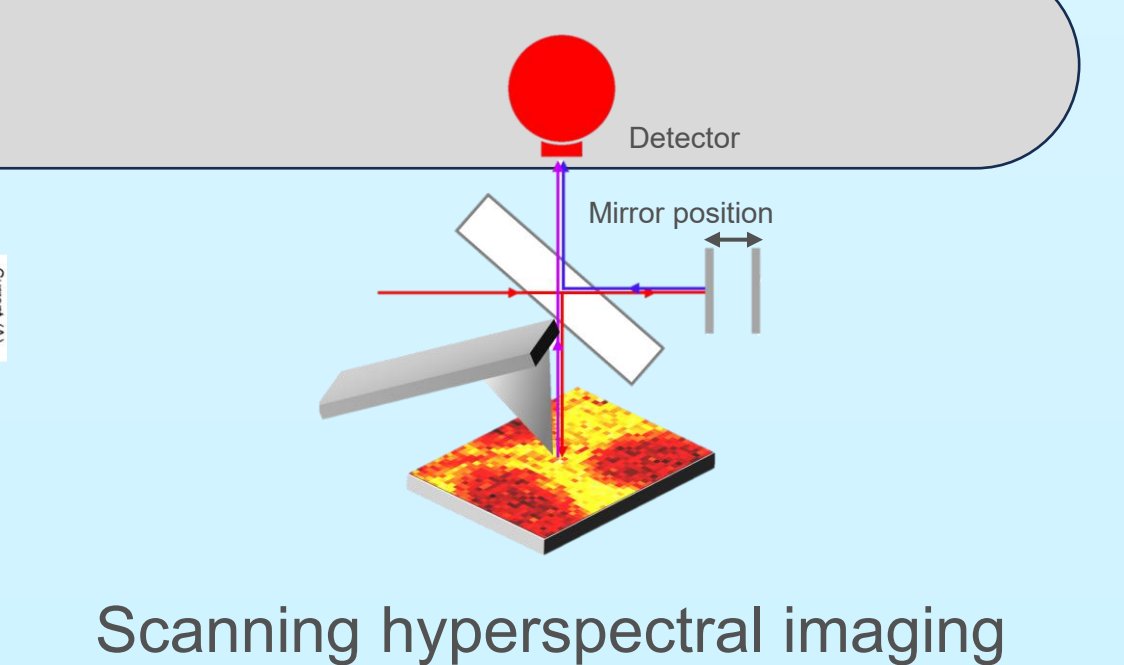
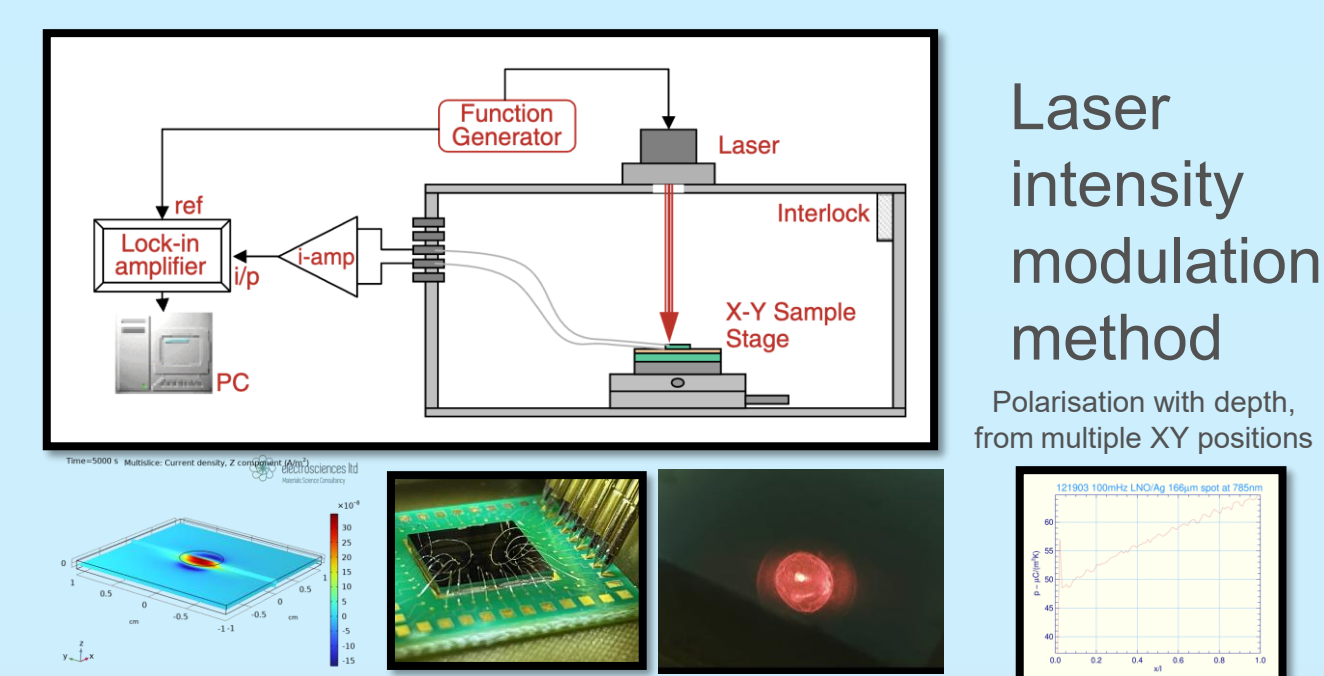
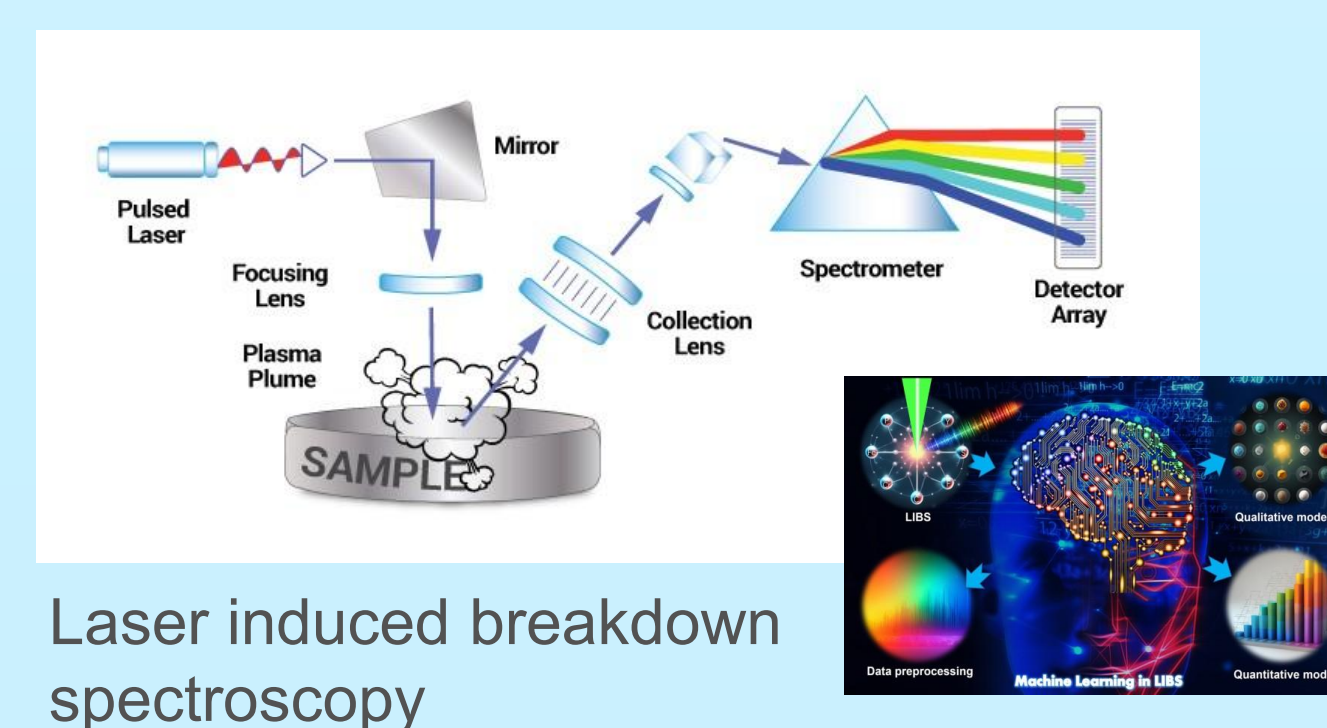
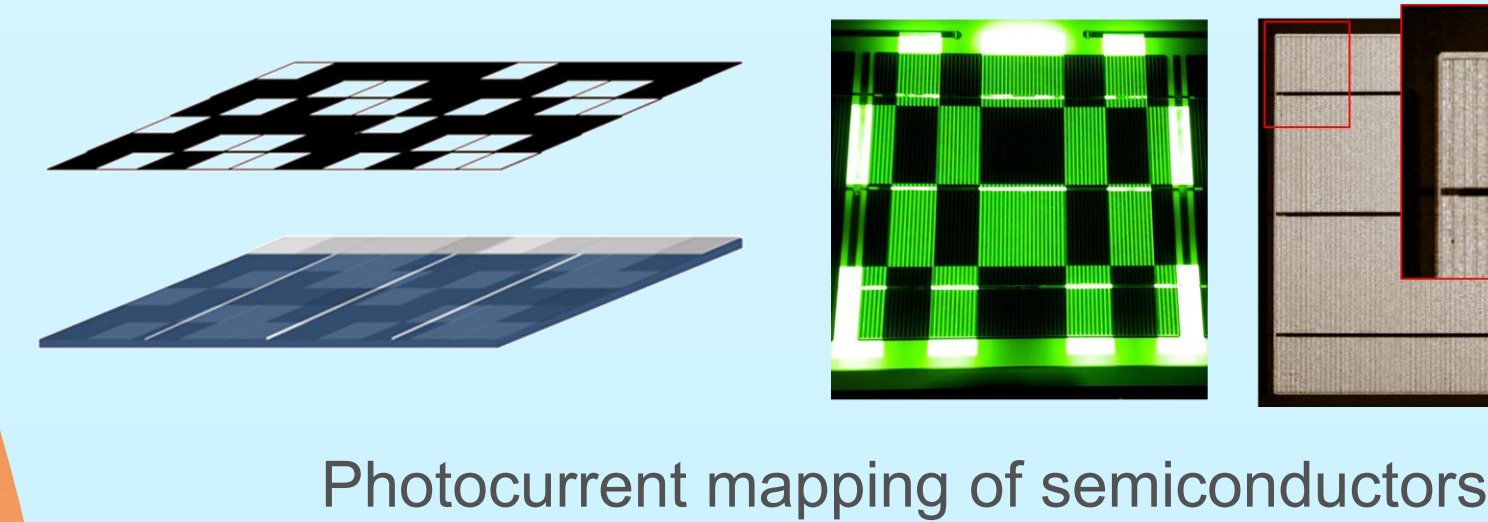
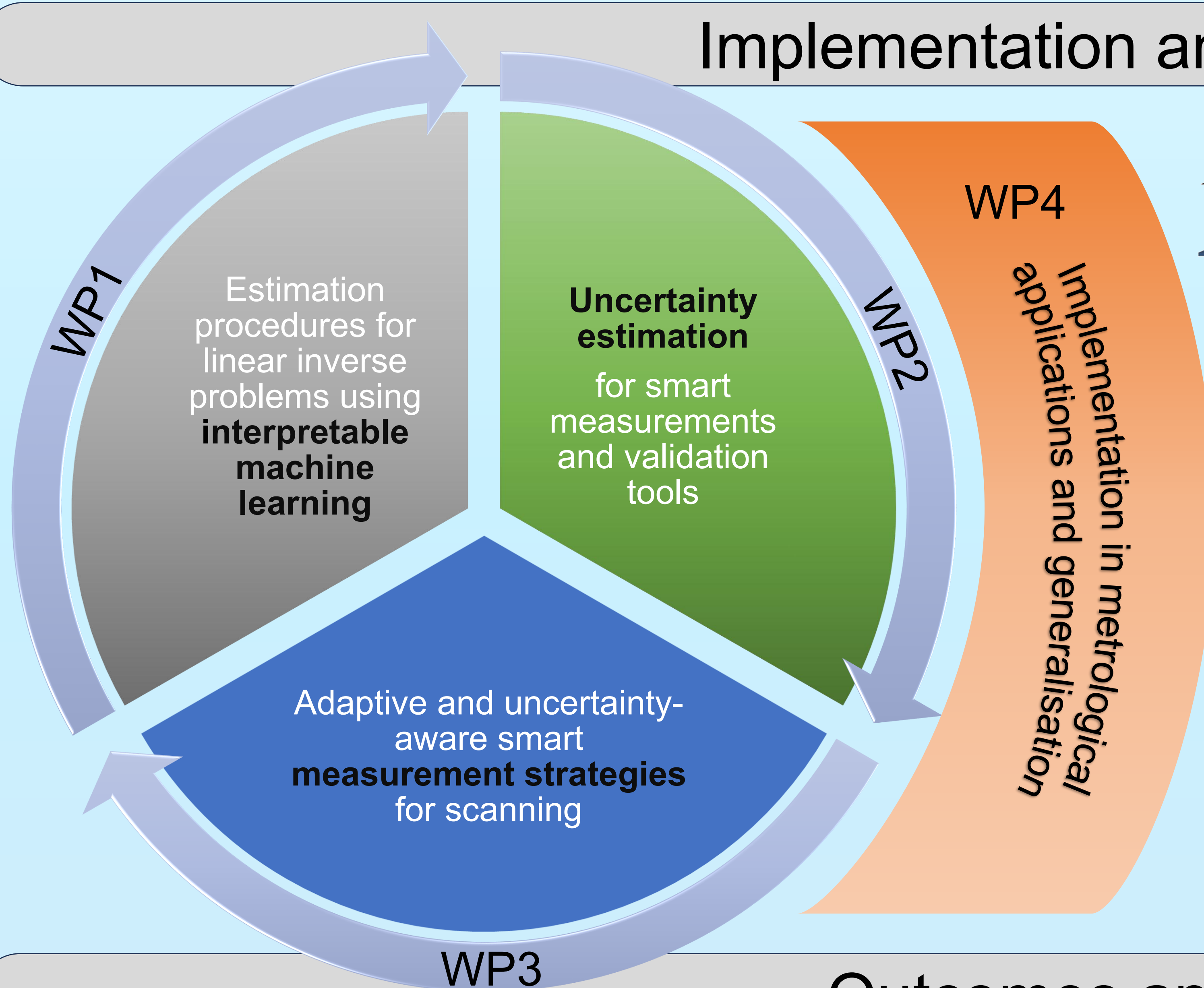
Smart measurement strategies



Trustworthy machine learning



Implementation and Excellence

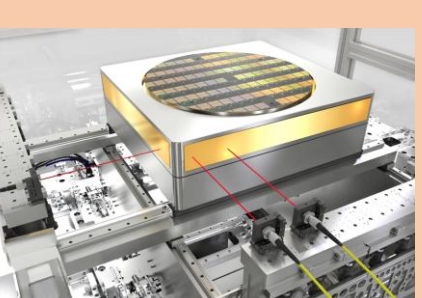


Outcomes and Impact

Experimental prototypes

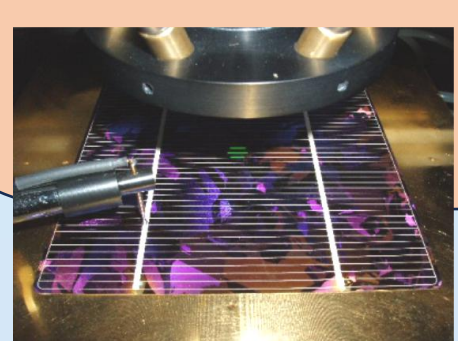
To demonstrate effectiveness and enable **transfer to industry**

Improved quality control through smart measurements, e.g. for



semiconductor industry

AR glasses manufacturer



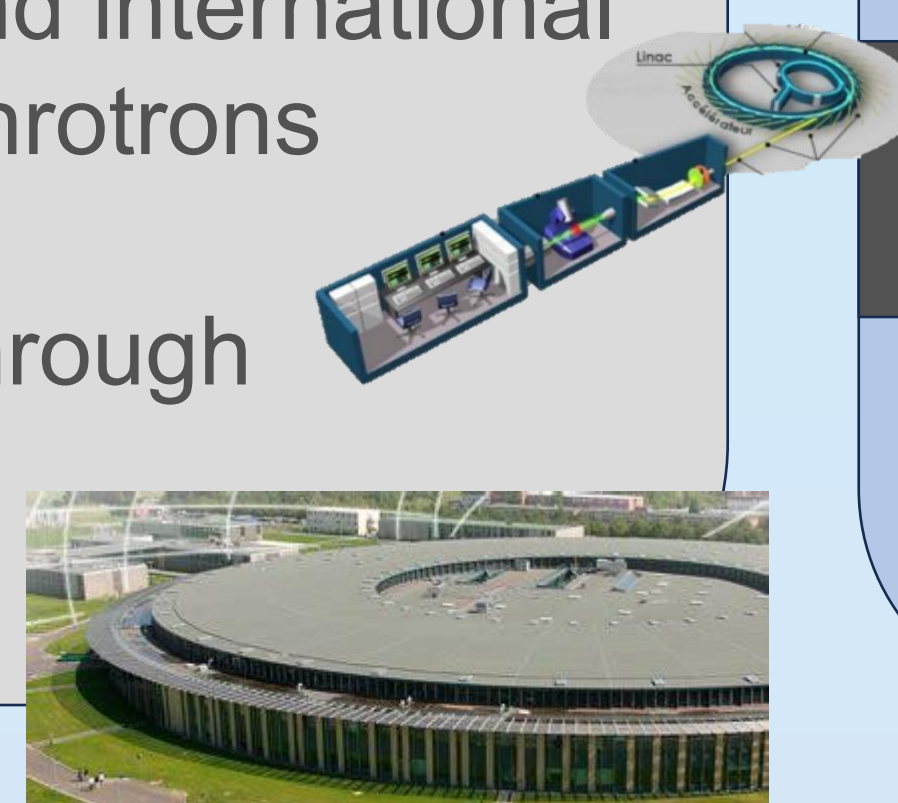
photovoltaic devices

Good practice guidelines

Manufacturer collaboration will ensure immediate take-up

Benefits of thousands of users at **large scale** national and international facilities, such as synchrotrons

Higher productivity through faster data acquisition



Generalising software

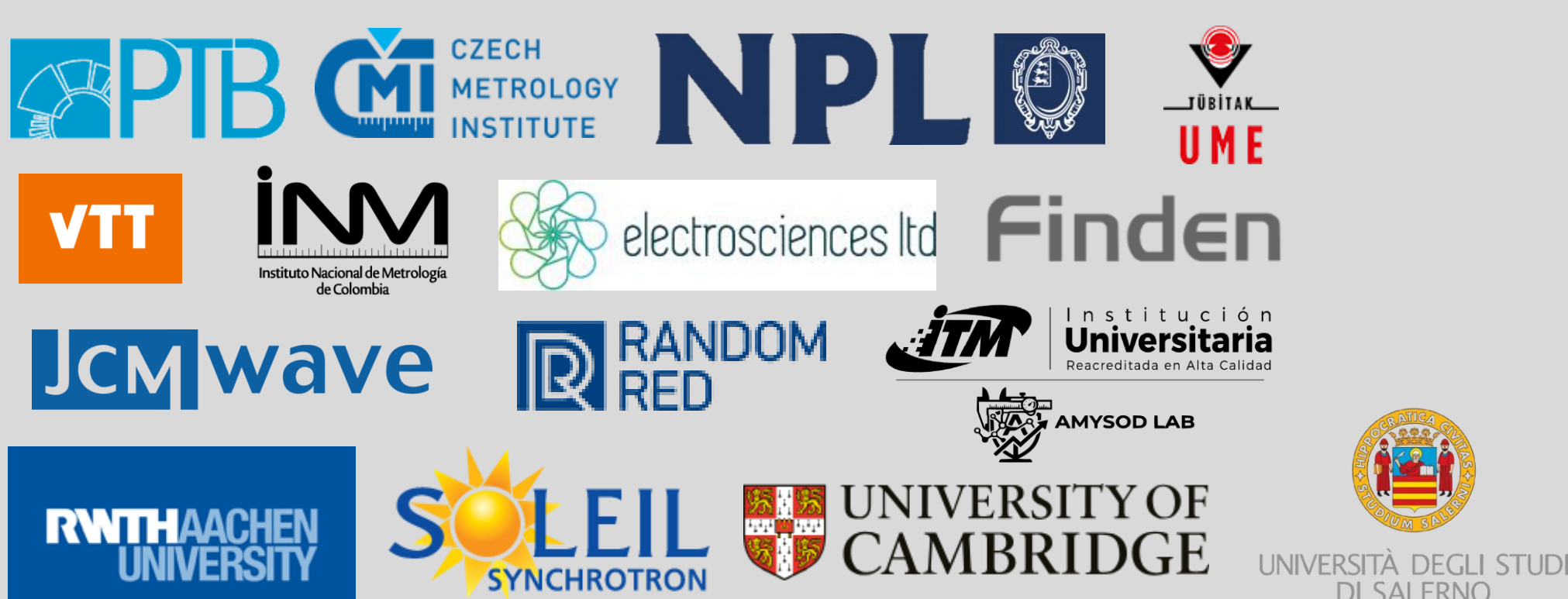
Novel mathematical / statistical and machine learning approaches to **perform smart measurements with validated uncertainty**

FAIR reference database

Facilitate future developments in metrology and scientific communities

Consortium

6 NMIs & 4 companies & 5 research institutes



Acknowledgement

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