



DIGITHON 2018

INNOVATION IN LEATHER TRACEABILITY



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THE TEAM



THE EXPERTISE

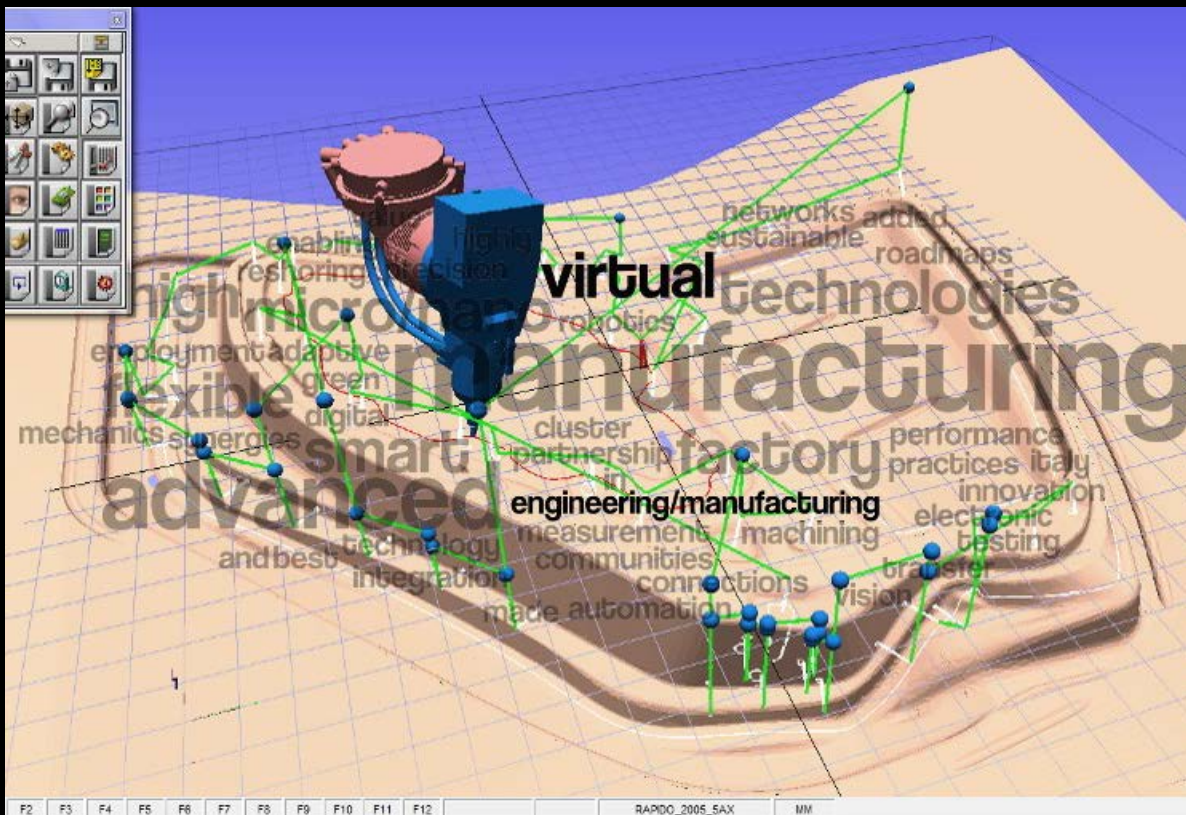


THE EXPERTISE



Monitech
Monitoring Technologies
Spin-off dell'Università del Salento

AE SOLUTIONS
2020/10/12



INDUSTRIAL COLLABORATIONS



GE imagination at work



NATUZZI
ITALIA



Avio Aero
A GE Aviation Business



THE INDUSTRIAL PROSPECTIVE



THE STATE OF THE ART



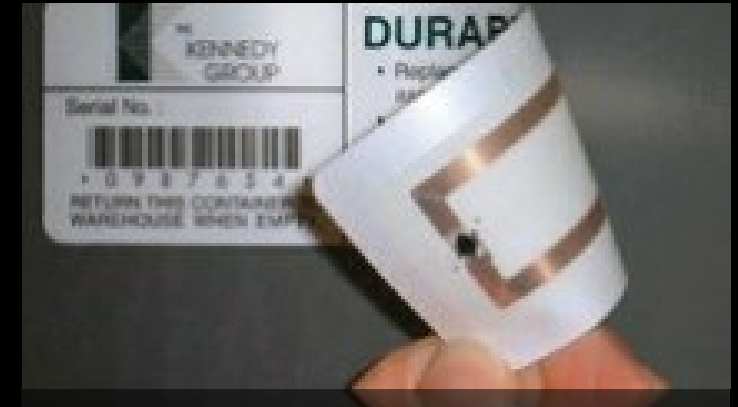
1900

...



...

2000



2010

2018

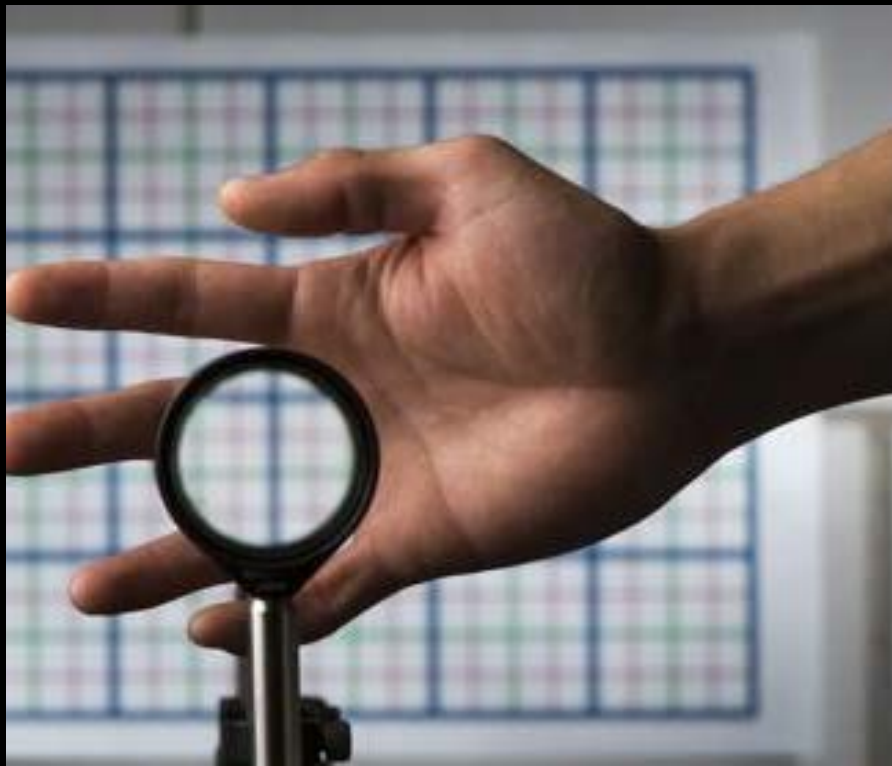


THE FUTURE



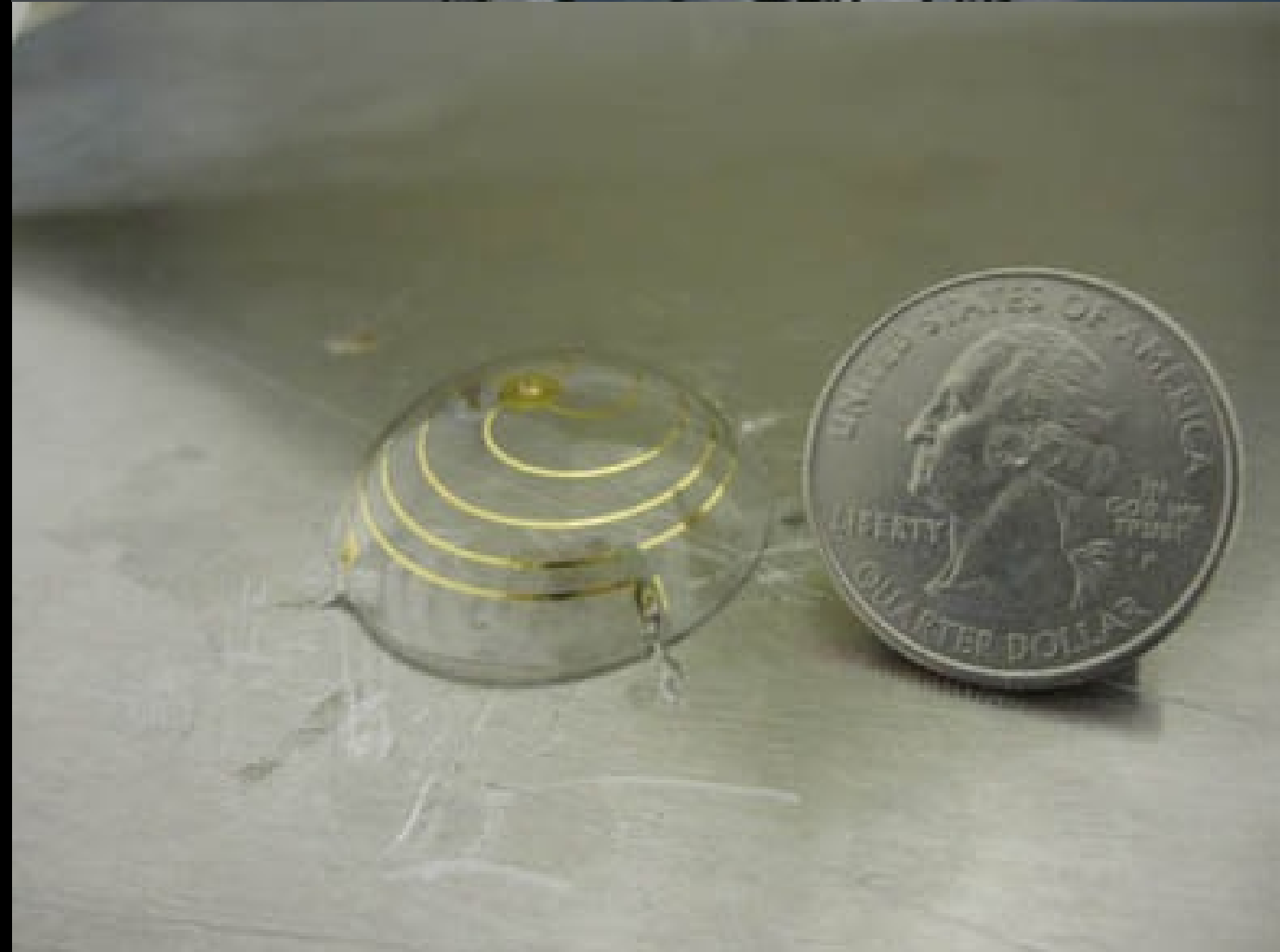
PCT Patent - METHODOLOGY FOR THE TRACEABILITY OF
LEATHER-LIKE AND LEATHER MATERIALS IN INDUSTRIAL
PROCESSES

THE MAIN FEATURES



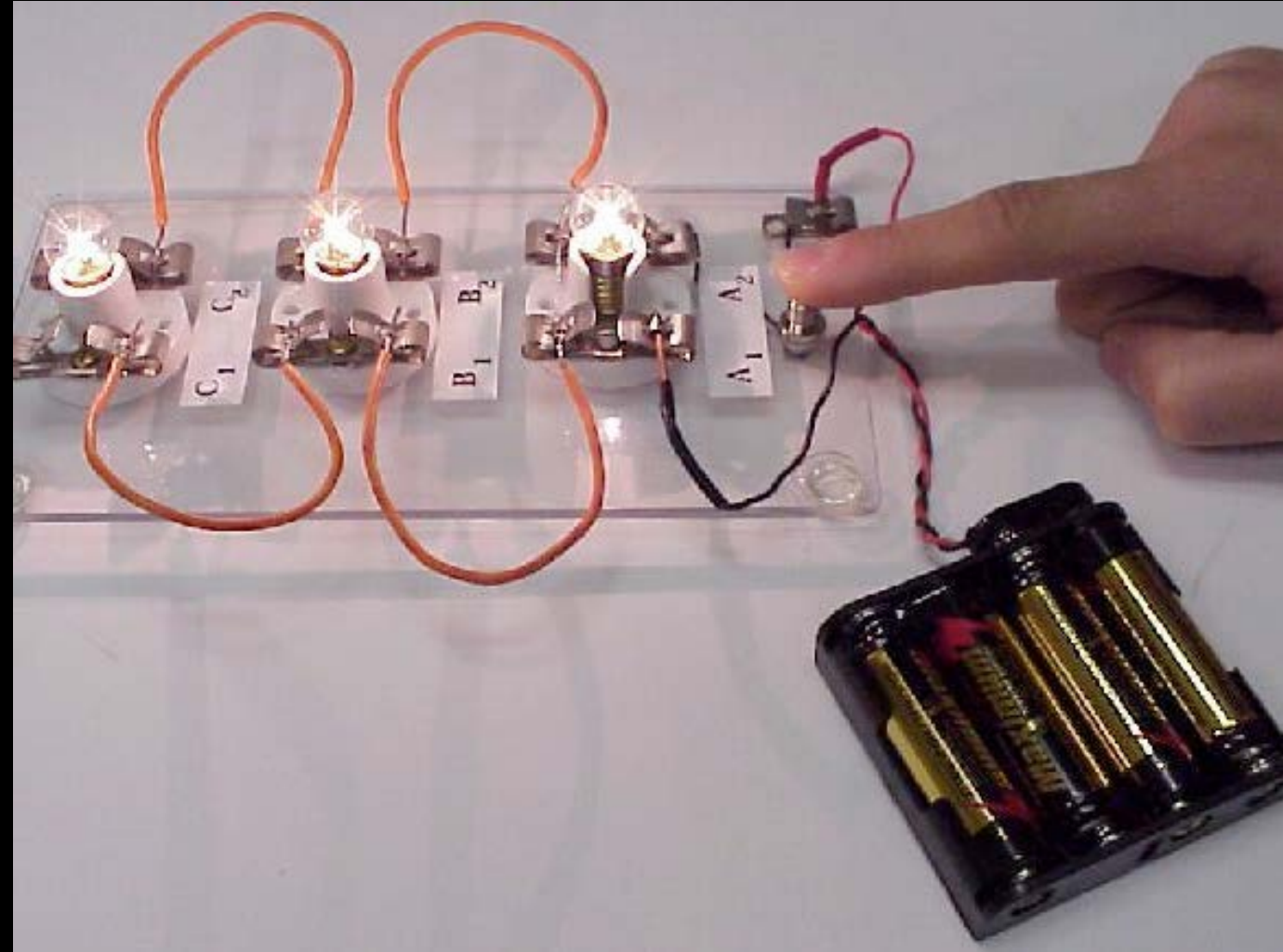
ADVANTAGES

- Dimensions are not pre-fixed: it is a “system”, not an “object”
- Dimensions can be customized (from small to large), according to the specific requirements of the product to be traced.



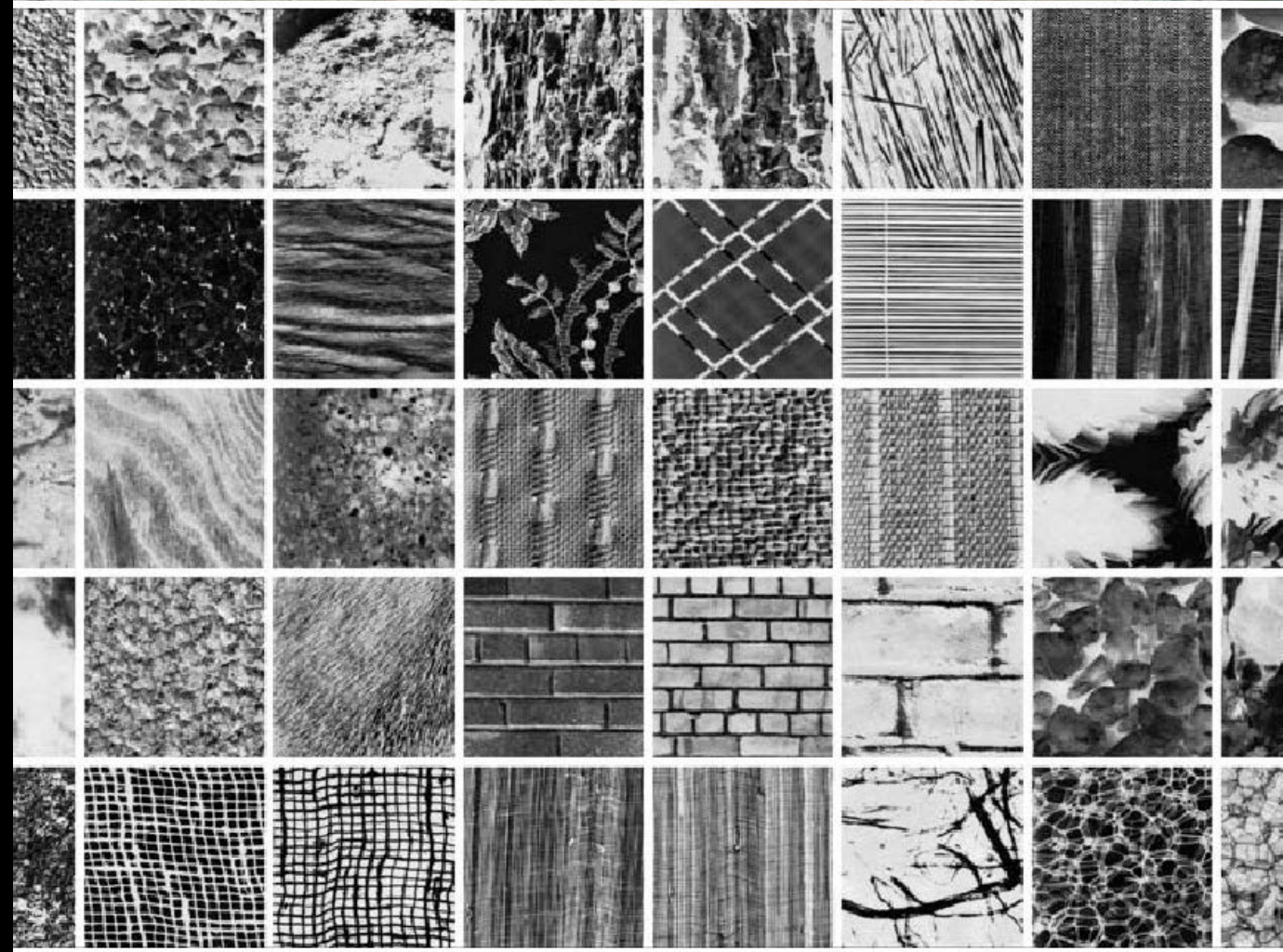
ADVANTAGES

- It can be applied in masked time with respect to the manufacturing process.
- The speed of application can be adapted to the speed of the tanning process.



ADVANTAGES

- It can be applied either permanently or temporarily, according to the type of product and to its destination of use.
- It can employ each and every class of materials: from ceramics to plastic.



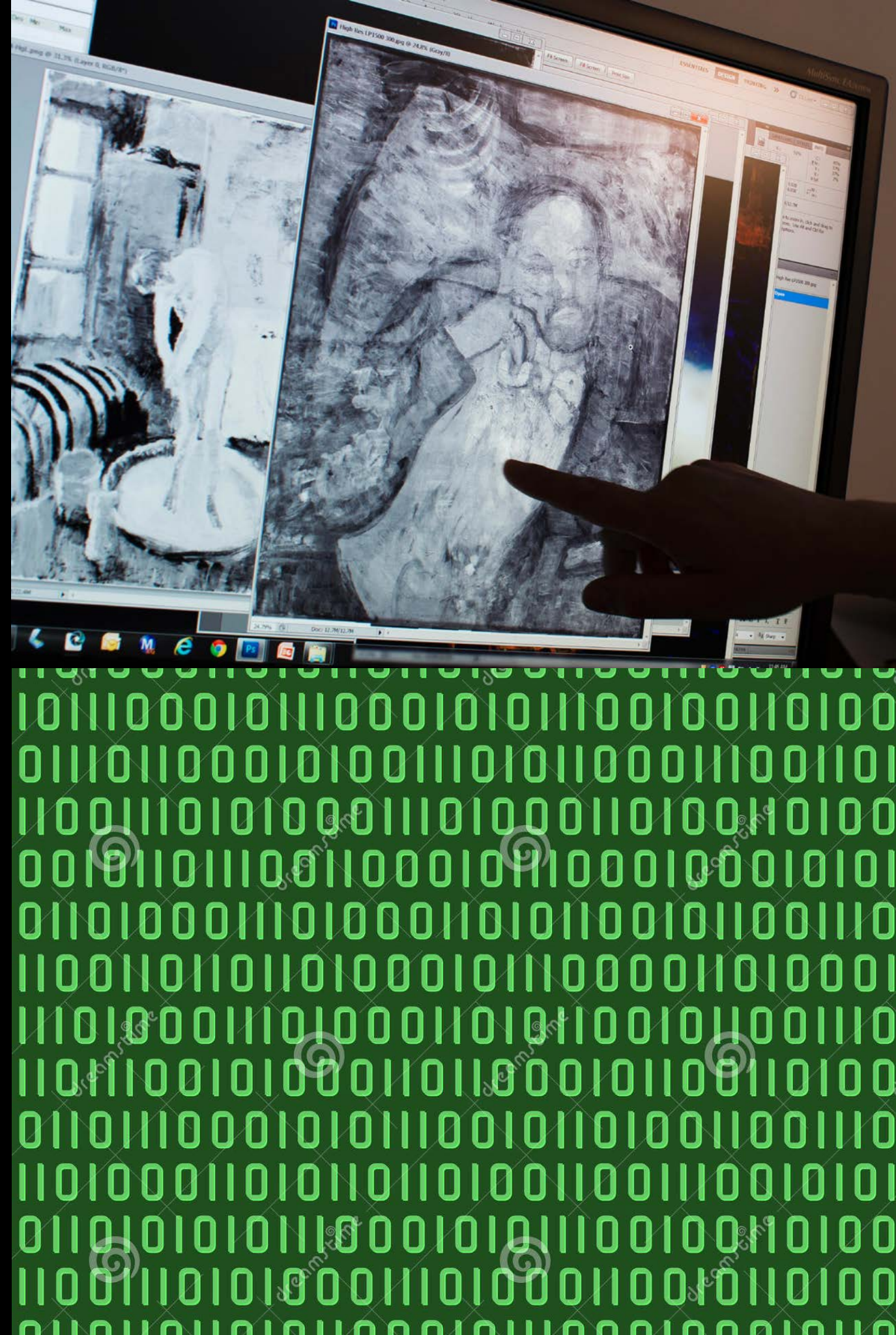
ADVANTAGES

- It is resistant to all the chemical and mechanical sub-processes that the hides undergo as part of the tanning process.
- It can be applied either in wet-blue or crust hides.



ADVANTAGES

- It is invisible to the human eye, still it can be individuated from a distance.
- It is not standard process, and it can generate a unique code for each single product.
- This means that it creates its own DNA.



SO, WHAT IS IT FOR?

- Tracing the product through each and every step of the tanning process.
- Tracing the in-coming and out-going hides (e.g. from and to external auxiliary manufacturers).



SO, WHAT IS IT FOR?

- Complete automation of the leather cutting machines, by removing the current nesting step (by tracing the defects, the machines could operate with no human supervision).
- Tracing the final product (e.g. leather sofas) back to each of the different hides from which the portions have been cut.



SO, WHAT IS IT FOR?

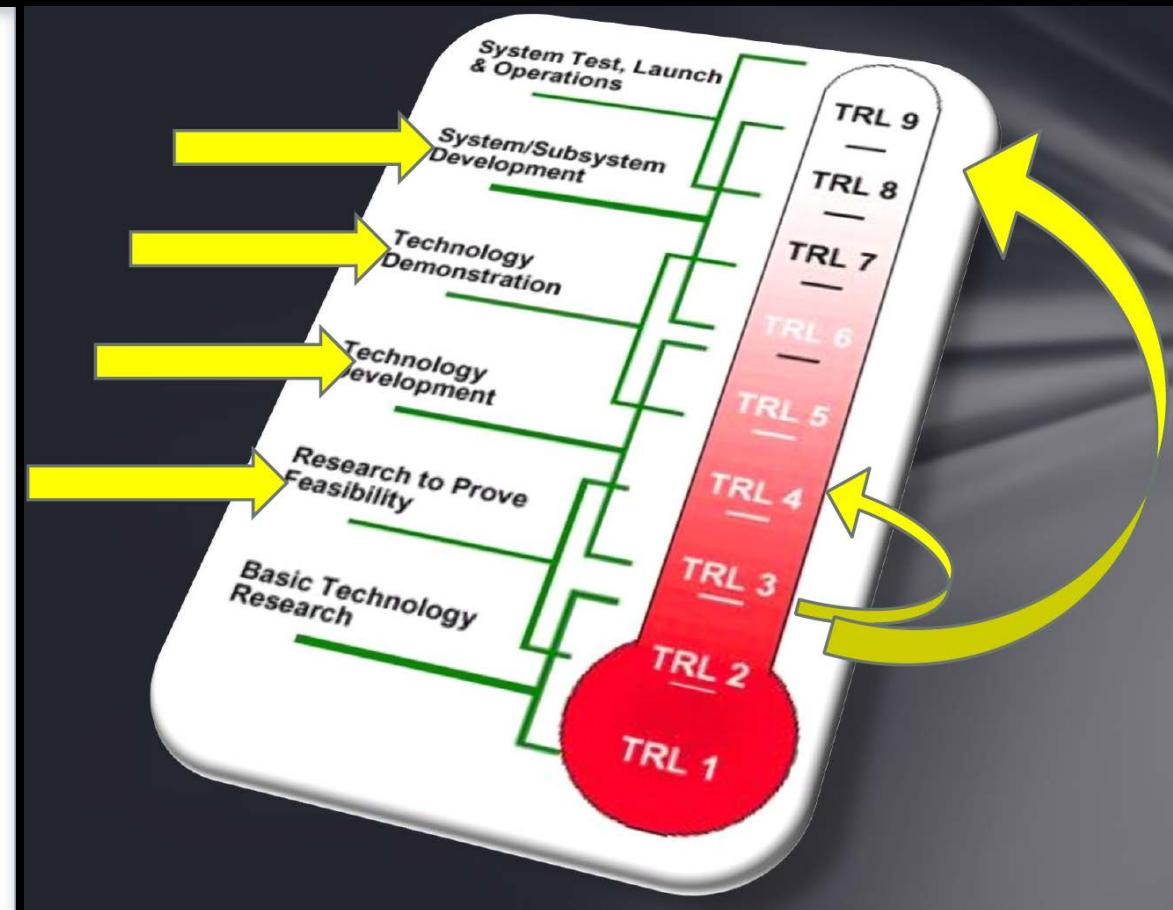
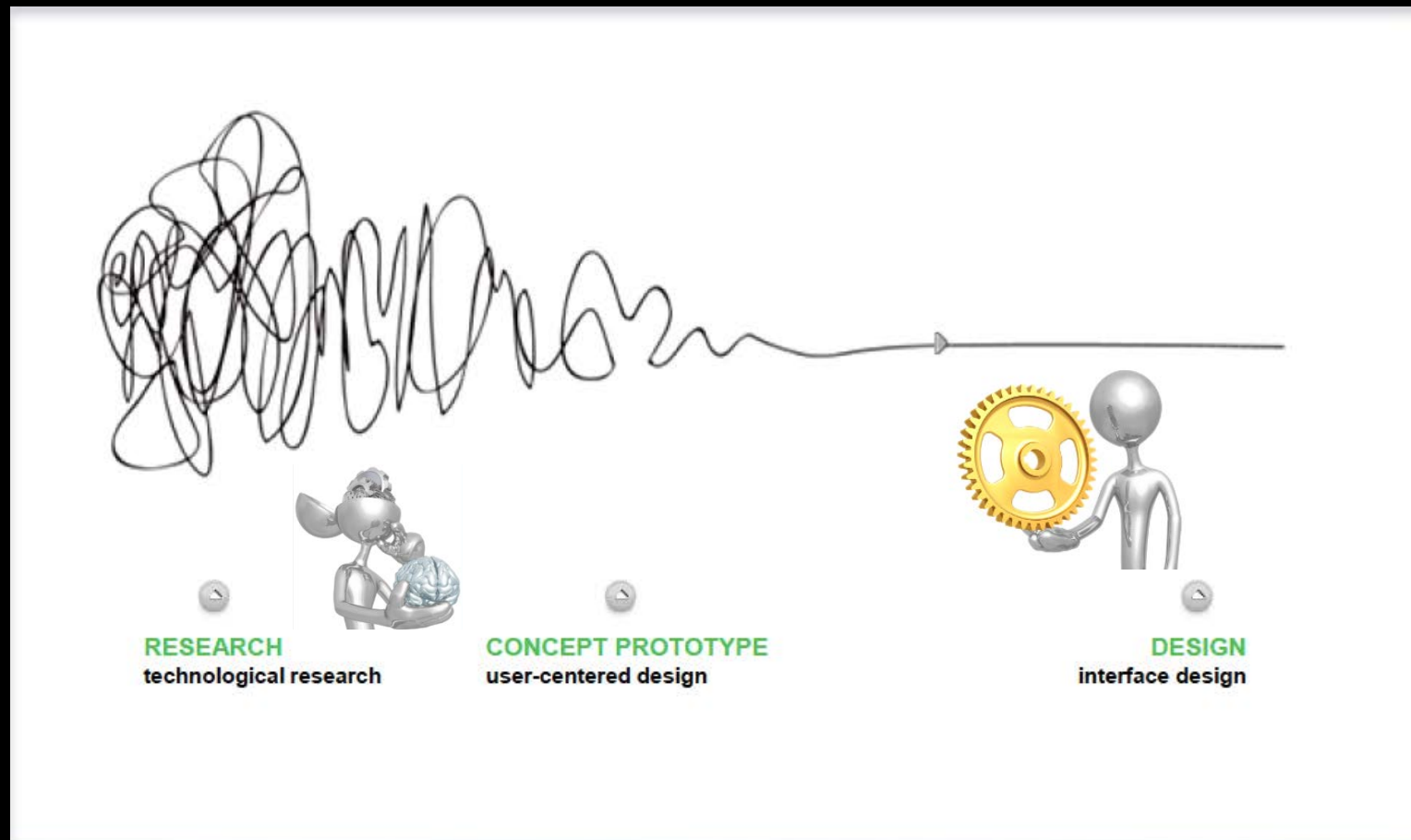
- Tracing and identifying (directly, uniquely and unambiguously) the final product.
- The manufacturer will be able to certify (with irrefutable evidence) the origin of the raw materials that have been used to realize the products.



SO, WHAT IS IT FOR?

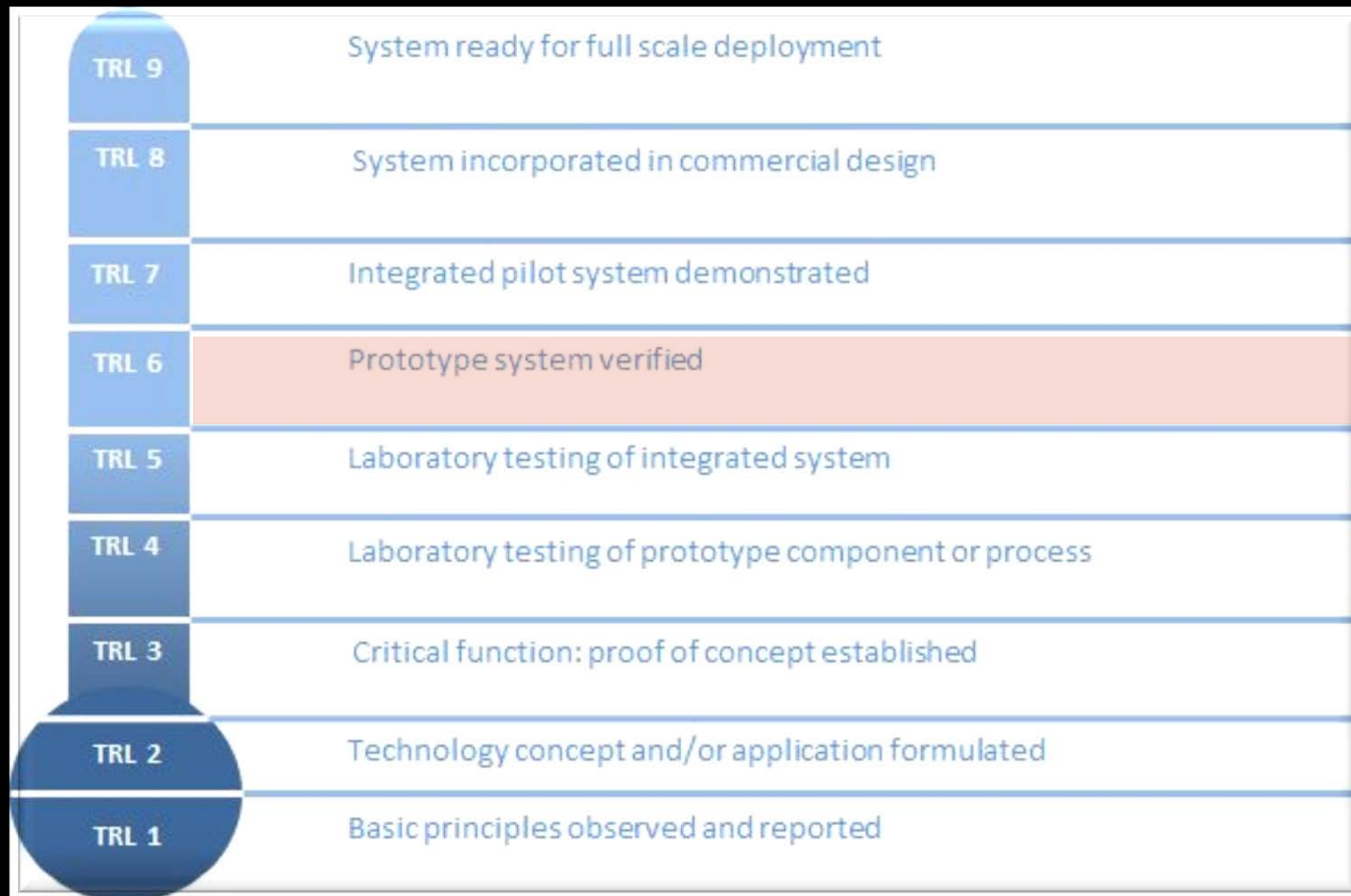
- Manufacturing a truly unique product and certifying its authenticity.

WHERE ARE WE?



- Which is, so far, the maturity level of this system?

WHERE ARE WE? THE PROVIDED SOLUTION ADOPTS HW/SW TECHNOLOGIES

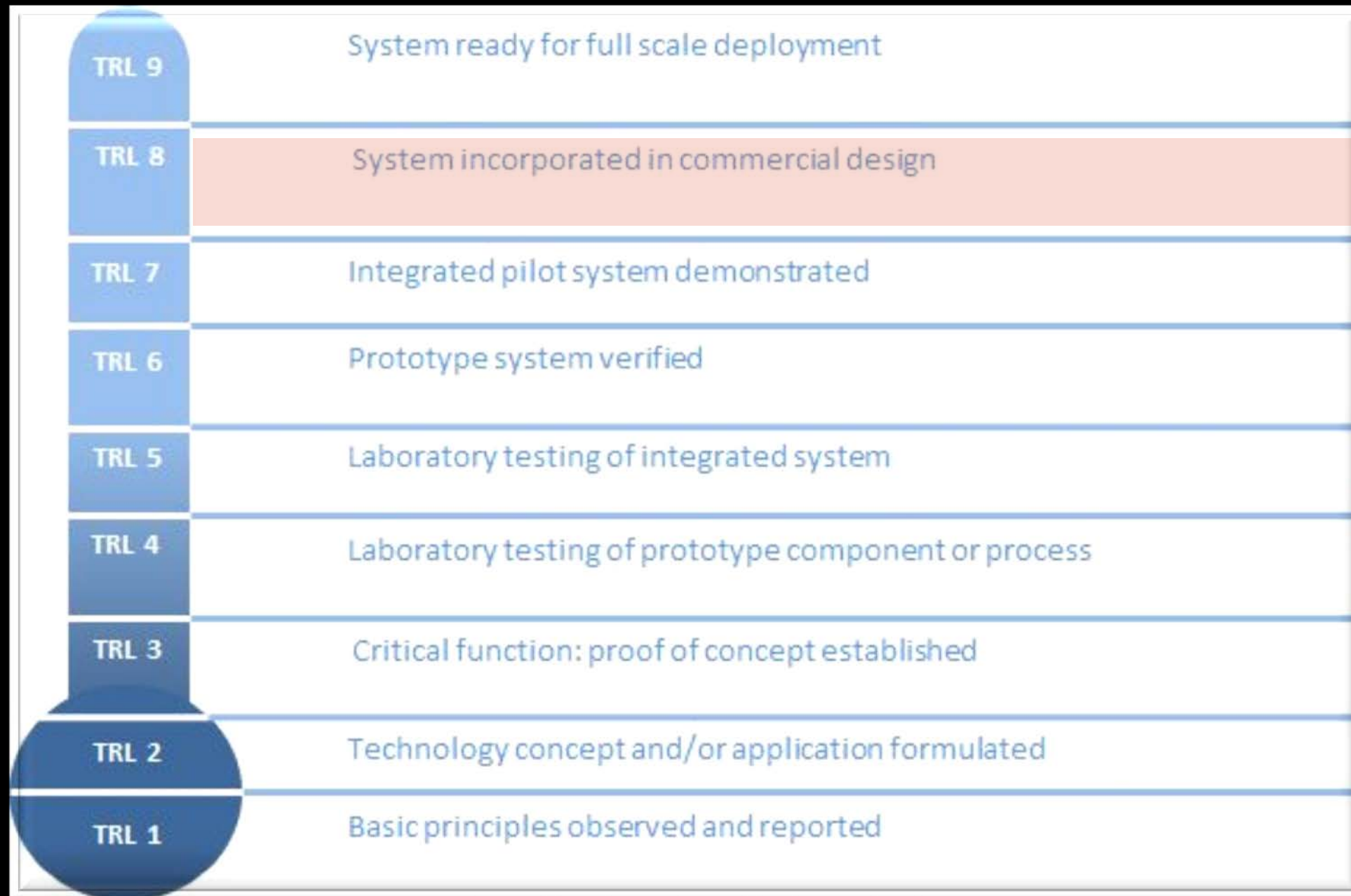


- **Hardware Technology:** Detection Solution on skinned and wet-blue hides: TRL 6 (as of **June 2018**)

WHERE ARE WE?

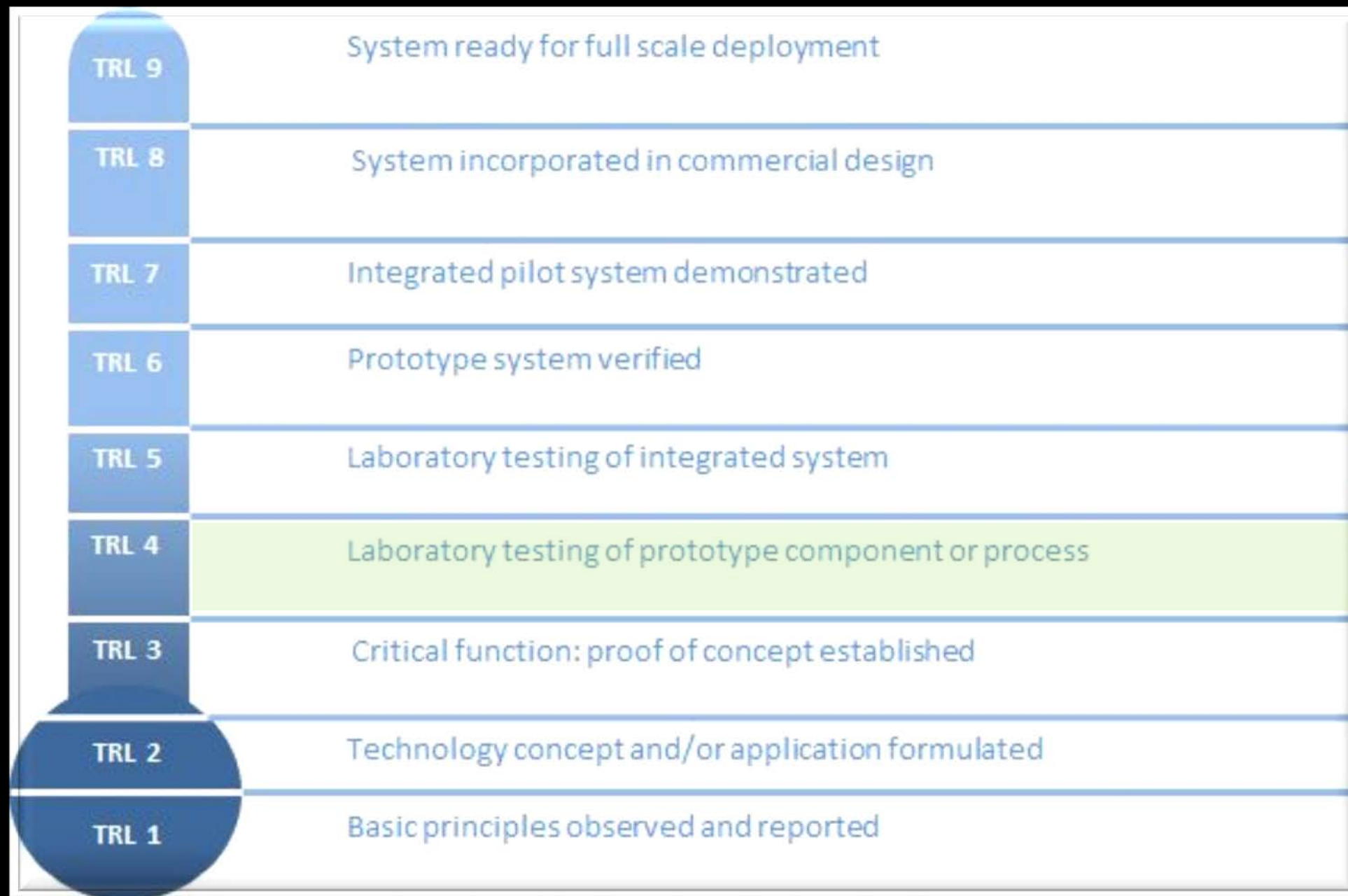
THE PROVIDED SOLUTION

ADOPTS HW/SW TECHNOLOGIES



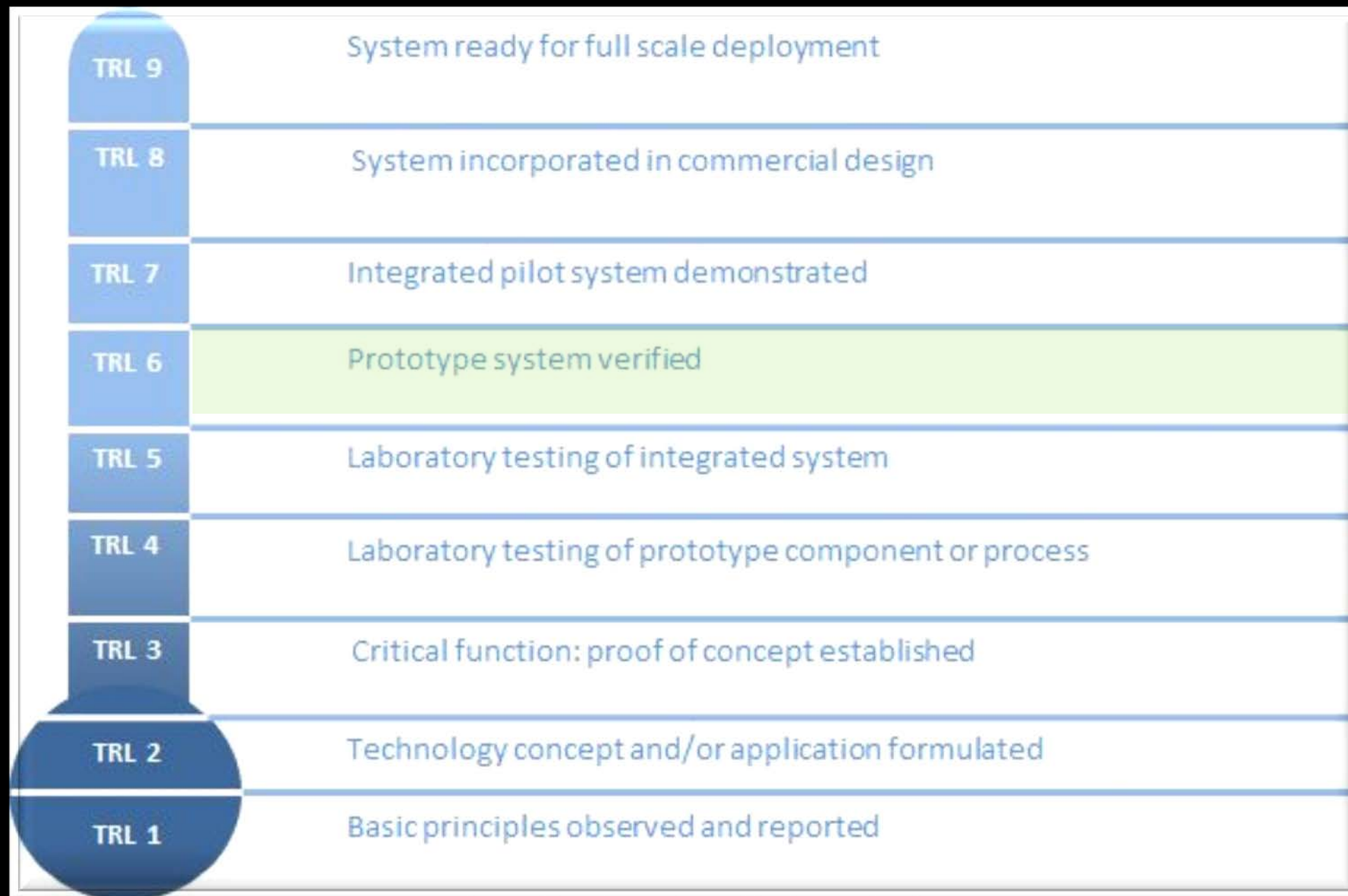
- Expected Hardware Technology: TRL8 by 31/12/2019

WHERE ARE WE? THE PROVIDED SOLUTION ADOPTS HW/SW TECHNOLOGIES



- Software Technology as of **June 2018**: management model of the acquired data - TRL 4;

WHERE ARE WE? THE PROVIDED SOLUTION ADOPTS HW/SW TECHNOLOGIES



- Software Technology as of **June 2018**: Data management,
- Envisaged TRL (by Feb. 2019): management model of the acquired data (TRL 6)

OTHER ISSUES CURRENTLY UNDER DEVELOPMENT



- A series of experimental, functional tests have been successfully carried out on a number of hides, from the «just-skinned» status up to the finished-product status.
- Currently, the Development Team is working on 1) assessing different detection modalities; 2) creating a suitable management model for the data acquired through the different detection phases; 3)....
- Possible business models to pursue: license agreement (yearly or perpetual) paid up, pay per use, etc.....

AND THEN?



- Ready to Use: **December 2020**