



assomac

NATIONAL ASSOCIATION MANUFACTURERS
OF FOOTWEAR, LEATHERWOODS
AND TANNERY TECHNOLOGIES

MID

Measuring Instruments Directive 2014/32/EU

International meeting; Hong Kong 28th March 2017



International Council of Tanners
the worldwide organisation for producers of leather



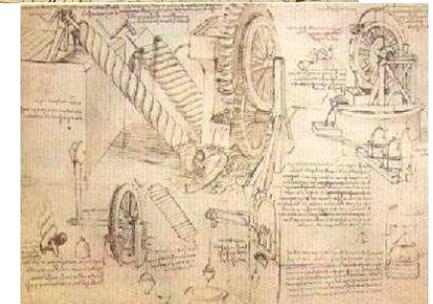
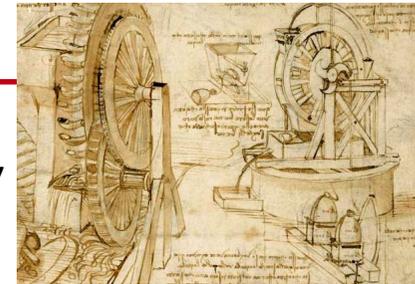
Legal metrology is the science of measurement. It is very important for trade and our everyday lives. No market can function without correct measuring and without common units of measurement. The EU's legislation on legal metrology is one of the pillars of the single market for products. EU requirements aim to promote technological innovation, protection of health, public safety, protection of the environment and fair trade.

Measuring instruments range from waters meters to weighing machines. They are important for trade, consumers and industry as they ensure accuracy of measurement, transparency and fairness.

MID Measuring Instruments Directive 2014/32/EU is a directive by the European Union, which seeks to harmonize many aspects of legal metrology across all member states of the EU

Measuring instruments:

- Water meters
- Gas meters and volume conversion devices
- Active electrical energy meters
- Heat meters
- Measuring systems for the continuous and dynamic measurement of quantities of liquids other than water
- Automatic weighing instruments
- Taximeters
- Material measures
- Dimensioning systems
- Exhaust gas analysers



EU regulations

<http://www.newapproach.org/Directives/DirectiveList.asp>



MACHINERY DIRECTIVE
2006/42/EC



... after the transitory period...
1st November 2016
Directive 2014/32/EU

- the commercial transaction must be regulated by MID
Equipment/Instrument/Machine
- non MID Equipment/Instrument/Machine must be suitable only for internal use

Mutual Recognition Agreements (MRAs)

The Member States, EFTA countries (EEA members) and other countries with which the EC has concluded [Mutual Recognition Agreements](#) (MRAs) and Protocols to the Europe Agreements on Conformity Assessment and Acceptance of Industrial Products (PECCAs) have designated Notified Bodies, established per directive.

Australia
Canada
Israel
Japan
New Zeland
Switzerland
USA



support organizations

MID Measuring Instruments Directive 2014/32/EU

replacing Directive 2004/22/EC, amended by Directive 2015/13/EU...



MI-001	water meters				
MI-002	gas meters and volume conversion devices				
MI-003	active electrical energy meters				
MI-004	thermal energy meters				
MI-005	measuring systems for continuous and dynamic measurement of quantities of liquids other than water				
MI-006	automatic weighing instruments				
MI-007	taximeters				
MI-008	material measures				
MI-009	dimensional measuring instruments				
MI-010	exhaust gas analysers				



Organisation Internationale de Métrologie Légale

International Organization of Legal Metrology

may be identified as giving presumption of conformity with the essential requirements of the Directive.

Area measuring instruments - OIML R 136-1, 2004 - 2004/22/EC
MI-009 III

OJ C 269 of 4.11.2006, p1	CT-009-III, 2006
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Measuring Instruments Directive 2004/22/EC
Presumption of Conformity of the Quality System of Manufacturers with Module D or H 1 when EN ISO 9001:2000 is applied
Corresponding Tables
Area Measuring Instruments
OIML R 136-1 2004 –
MID 2004/22/EC MI-009 III

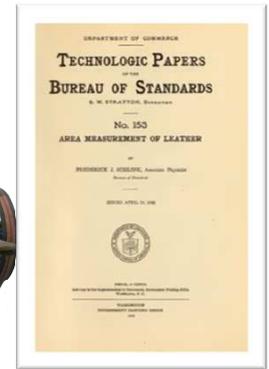
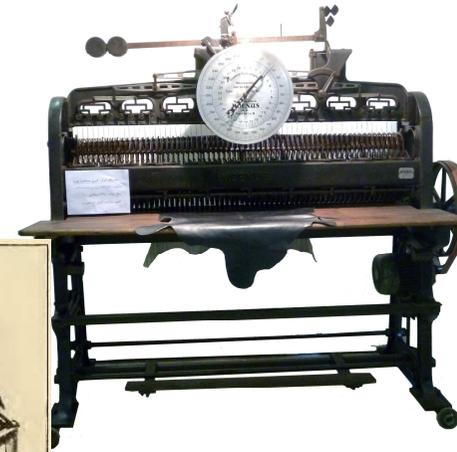
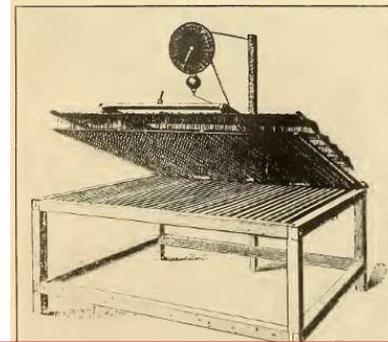
GUIDE:

-... draft recommendations and document are developed by technical committees or subcontractor...

-... to manufacturers of measuring instruments and notified bodies responsible for conformity assessment ...



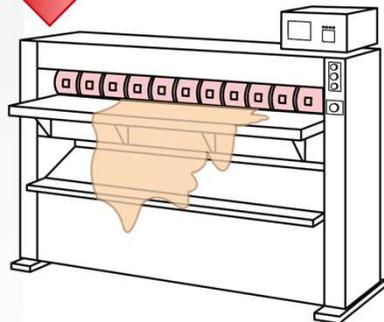
history ...*analogic*



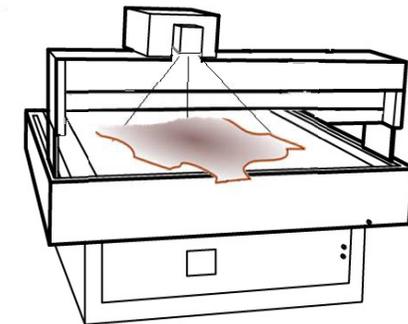
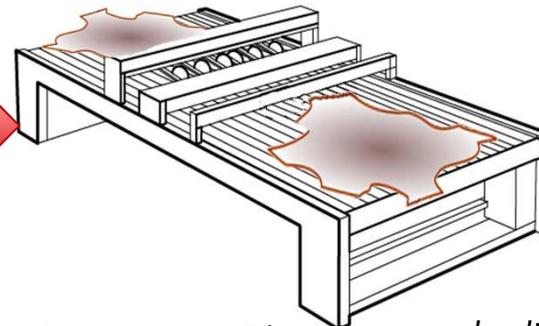
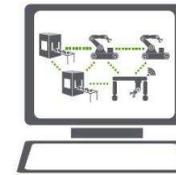
n° 153
AREA MEASUREMENT OF LEATHER

?? MAINTENANCE /VALIDATION and DATA MANAGEMENT??

evolution ...*digital*



industry 4.0



(43)

MID Measuring Instruments Directive 2014/32/EU

It is necessary to increase the efficiency and transparency of the notification procedure and, in particular, to adapt it to new technologies so as to enable online notification.





web site

http://www.assomac.it



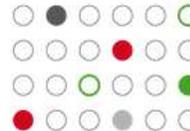
MACHINES AND TECHNOLOGIES GUIDE



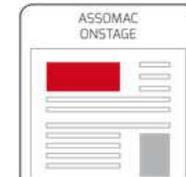
REFERENCE EXHIBITIONS IN ITALY



ASSOCIATED COMPANIES



ASSOMAC ON STAGE



NATIONAL ASSOCIATION MANUFACTURERS OF FOOTWEAR, LEATHERWOODS AND TANNERY TECHNOLOGIES

A03 - FINISHING MACHINERY



Establish a unique general for the finishing procedure of the product is very difficult; the steps of these operations are frequently reserved and part of the single tannery competence. However, the common elements of the finishing process are: 1) Dray milling for softening 2) Staking to make the skin flexible 3) Coating surface for final look. The last stages finishing are a combination thermal and mechanical action (heat and pressure) for the grain plating. Film Application on surface as well as polishing and grinding are performed on skins with any particular defects on grain allowing the product recovering.



A03.01 - DRY DRUM FOR MILLING

Drums for dry milling to soften the leather by mechanical shaking to controlled moisture and temperature. In addition to the simple action of softening, some cleaning chemicals recipes may be used to obtain desired special fashion effects; for which the drums may be equipped by chemical dosing devices.

A03.02 - THROUGH-FEED STAKING MACHINES



Softening and spreading of leather are the main aim of the staking process and also contribute effectively its yield. The head type vibration staking machines concept are based on pin design for wet or dry hides processing; the mechanical and electric device provide the synchronised oscillation motion.

MANUFACTURERS

COMPANY LOGO

INFO WEB

SEE ALSO:

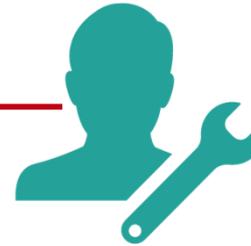
A03.01 - Dry drum for milling



A03.03 - Rotary Staking machines



key topics **MID** Directive 2014/32/EU:



➤ Arbitrary modifications

➤ Data integrity

➤ Cybersecurity  **ISO/IEC 27001**

➤ Validation and certification



EUROPEAN STANDARD	EN ISO 19076
NORME EUROPÉENNE	ISO 19076 / IUP 58 (rep. 11646)
EUROPÄISCHE NORM	
ICS 59.140.30	
Leather — Measurement of leather surface - Using electronic techniques	
<small>Cuir - Mesurage de la surface du cuir - utilisation de techniques électroniques (ISO 19076:2016)</small>	<small>Leather - Messung der Oberfläche des Leders - Elektronische Verfahren (ISO 19076:2016)</small>



ISO recognises IULTCS as an International Standardising Body for the preparation of test methods for leather.

Technologists and Chemists Societies (IUP Commission, IULTCS) in collaboration with the European Committee for Standardisation (CEN) Technical Committee CEN/TC 289.

Introduction

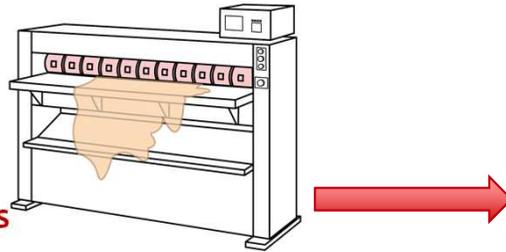
Leather surface measuring equipment used within the EU for legal metrology applications are also subject to the EU Directive, 2004/22/EC, on measuring instruments.



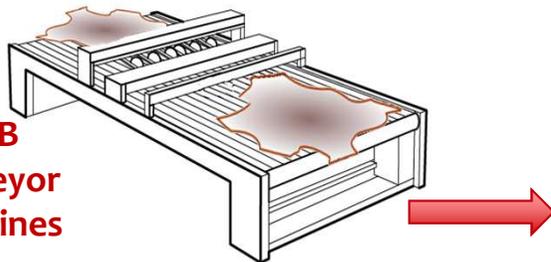
ISO 19076 machines categories

Leather — Measurement of leather surface - Using electronic techniques

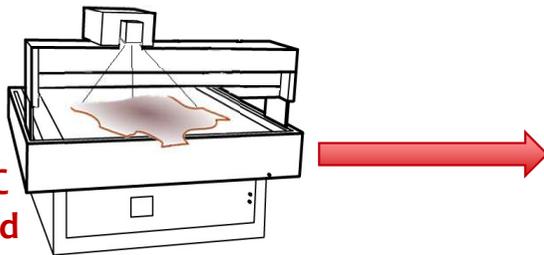
Type A roller machines



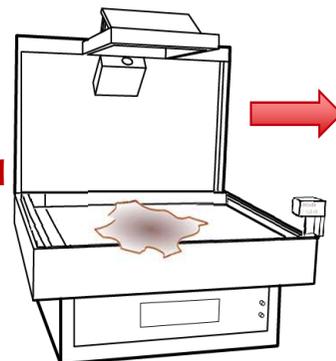
Type B conveyor machines



Type C flatbed scanning machines

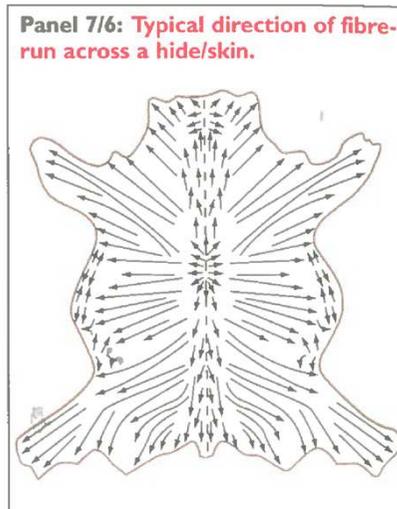


Type D bi-dimensional static measuring devices

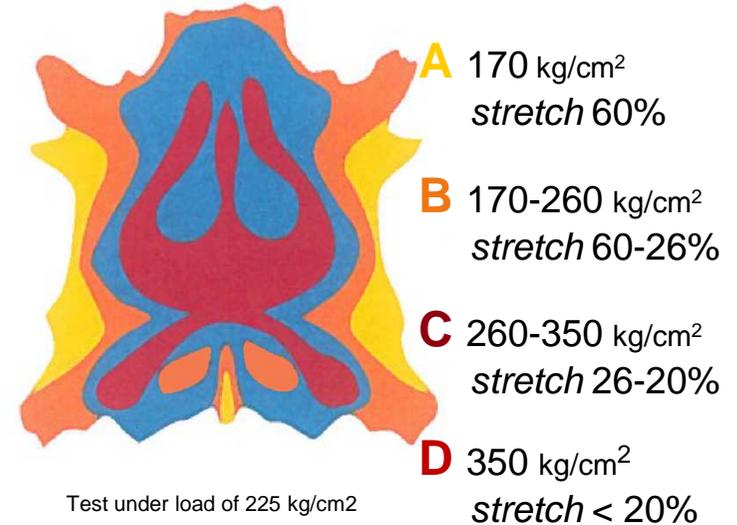


Timing	Sampling	Note
➤ Continuous	➤ Speed	➤ Traction force ➤ Surface
▪ Continuous	▪ Speed	▪ Surface
❖ Discontinuous	❖ Single scan	❖ Area size
✓ Discontinuous	✓ Single image	✓ Direct data tranf

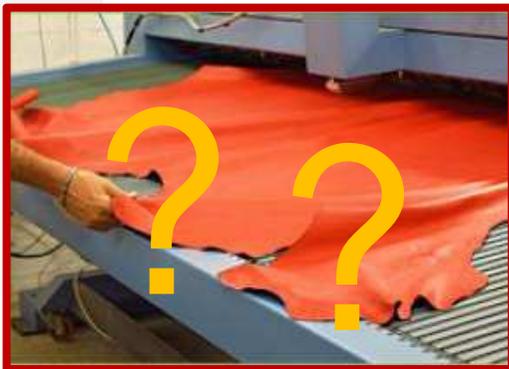
Methodology ...?



Difference in tensile strength



The Framework for Leather Manufacture,
R. Daniels W. Landmann WTP publishing 2013



- i. Suitable technology
- ii. Human procedure
- iii. Automatization
- iv. Environment condition

ISO19076/IUP 58

7. GENERAL MESURAMENT CRITERIA:

7.1 General measurement criteria

The results obtained for the leather surface area can vary depending on the type of machine (see annex D). Therefore the parties involved in a commercial transaction, intending to refer to this ISO, shall agree on the specific instrument to be adopted among types A,B,C and D



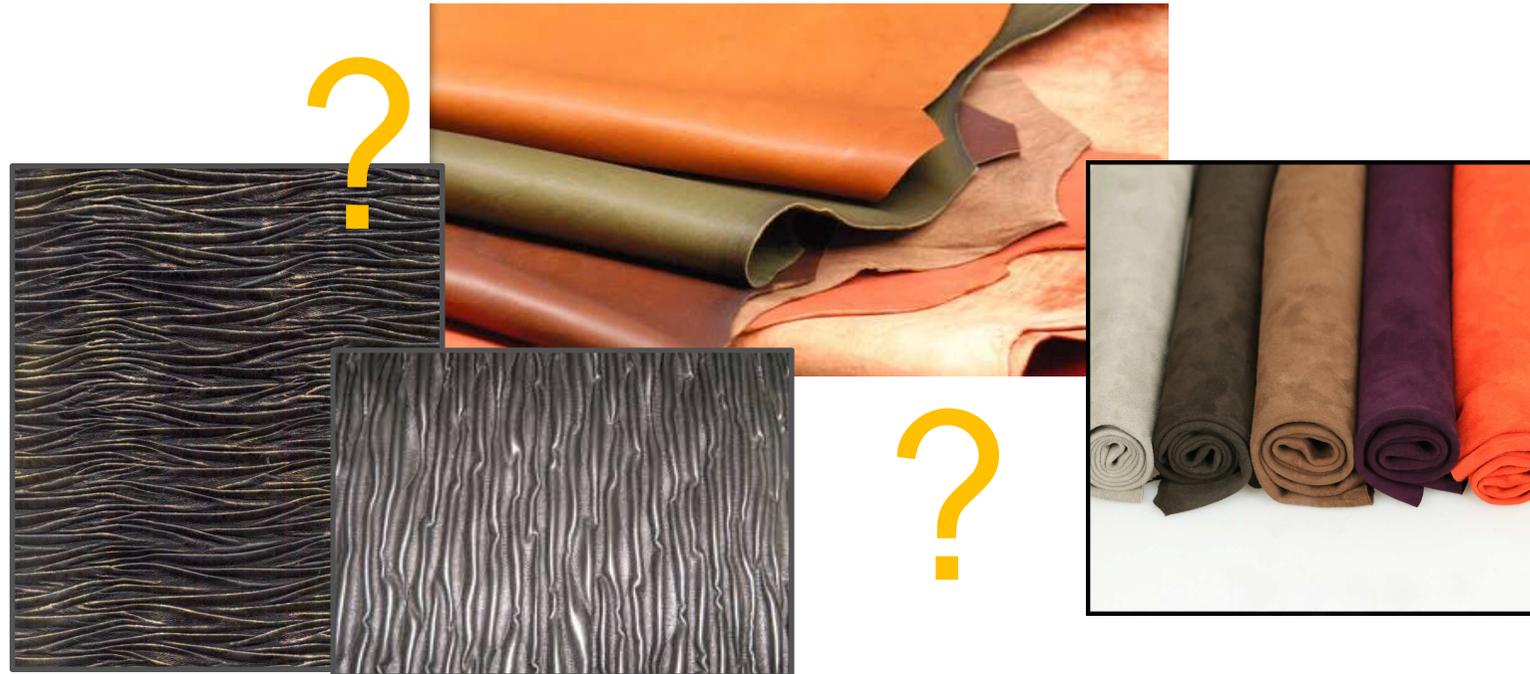
Annex A

Calibrated template for the verification of electronic measuring machines

A.1 Manufacturing Characteristics of calibrated templates

A.1.1 Material

The calibrated templates shall be made of opaque material, 0,5 mm to 3 mm thick, with high flexibility but practically inextensible during use (this feature can be obtained, e.g. using polymeric material with internal textile reinforcement)



A.1.2 Shape and Dimension

Calibrated templates are usually circular shaped.
Polygonal templates are not allowed provided that...



Sustainability...case of study



THICKNESS



SOLID WASTE IMPACT



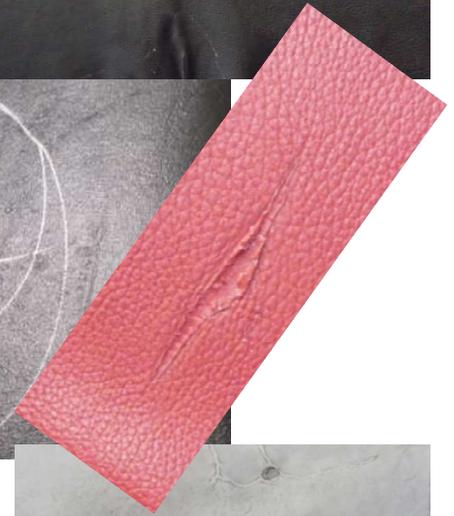
n° hides daily production	economize thickness	kg. Saving per hide	tot. kg. day	Year working days	!!!!!!
2400	0,1	1	2400	235	564.000

Speaking on bovine hides, the first *substance* (thickness) control point is after the lime splitting machine, where the hide tolerance is up to 0.4 mm. This difference which will be uniform later (shaving) on grain and on split.





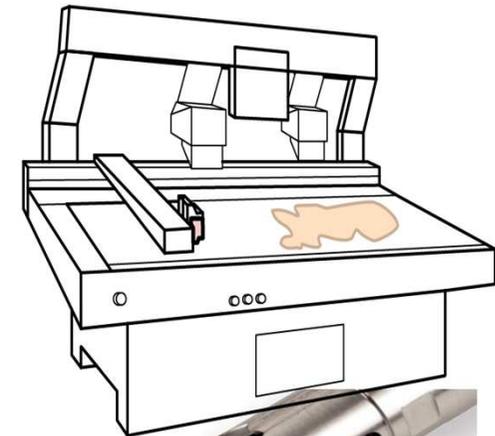
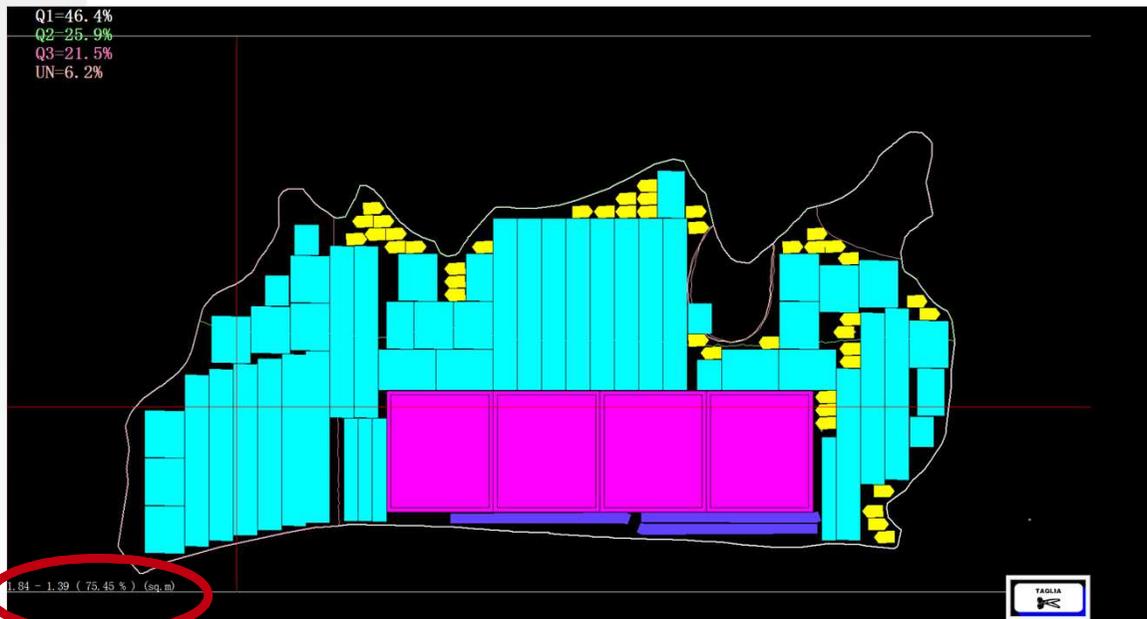
SUSTAINABILITY case of study



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Sustainability case of study



40.000 oscillations min.

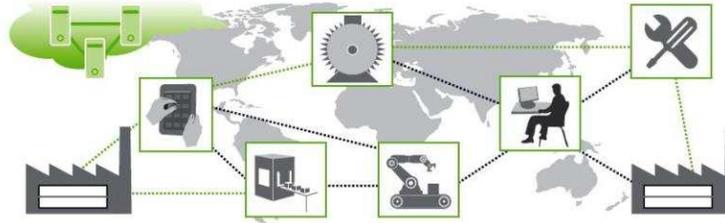
Surface (1.84 m) ... the yield (75.45%) of nesting.



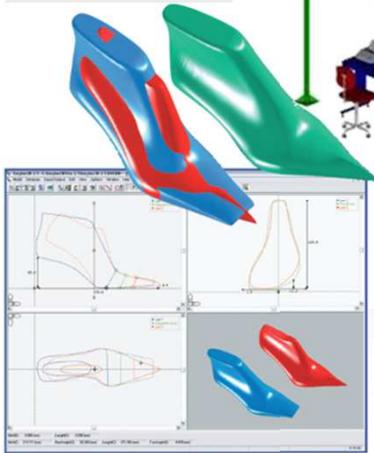
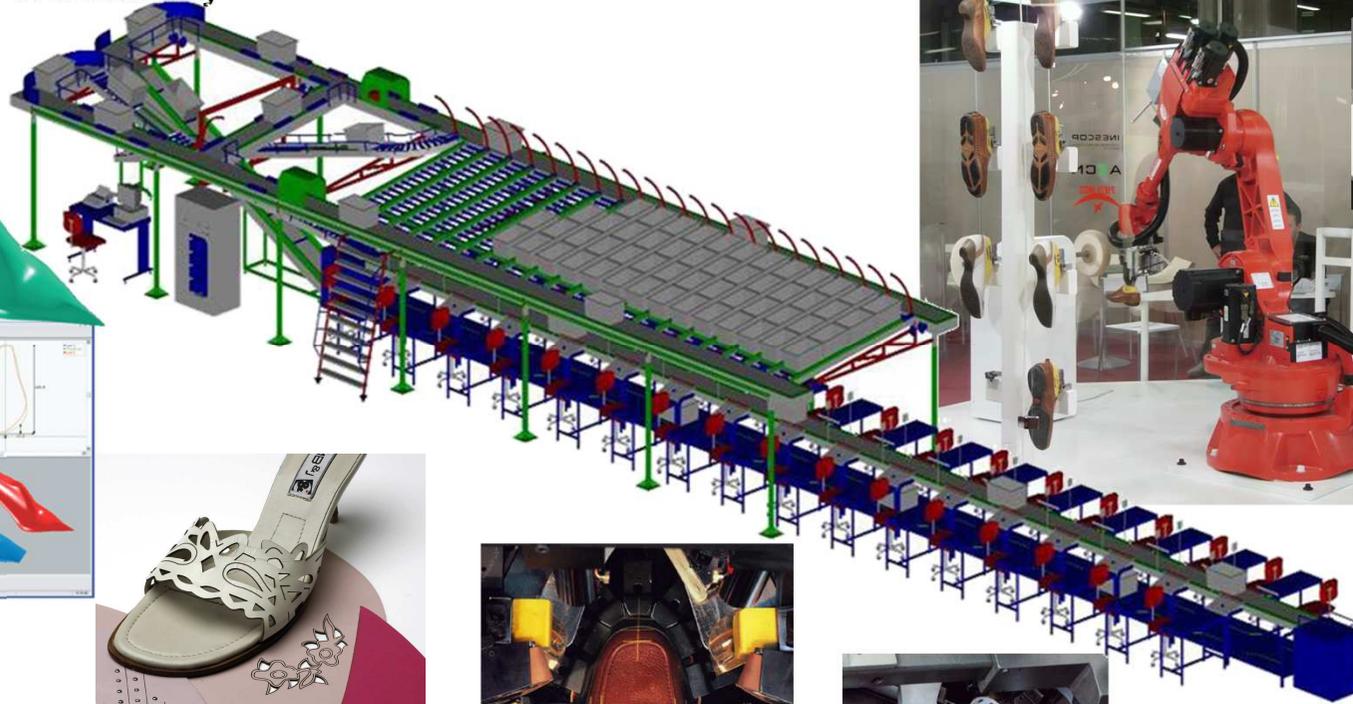




Industry 4.0



Traceability



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THANKS FOR YOUR ATTENTION

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