

Sensory Analysis in SUA Nitra, Slovakia



DEGUSTATION I. (evaluation)

- From french word *dégustation* (tasting)
- naive panel
- word description
- expert explaining
- no limit for tasters
- no results for degustation



Organoleptic evaluation II.

- scoring points by group
- using forms
- attributes description
- amount of people is limited
- output is order of products



Sensory analysis III.

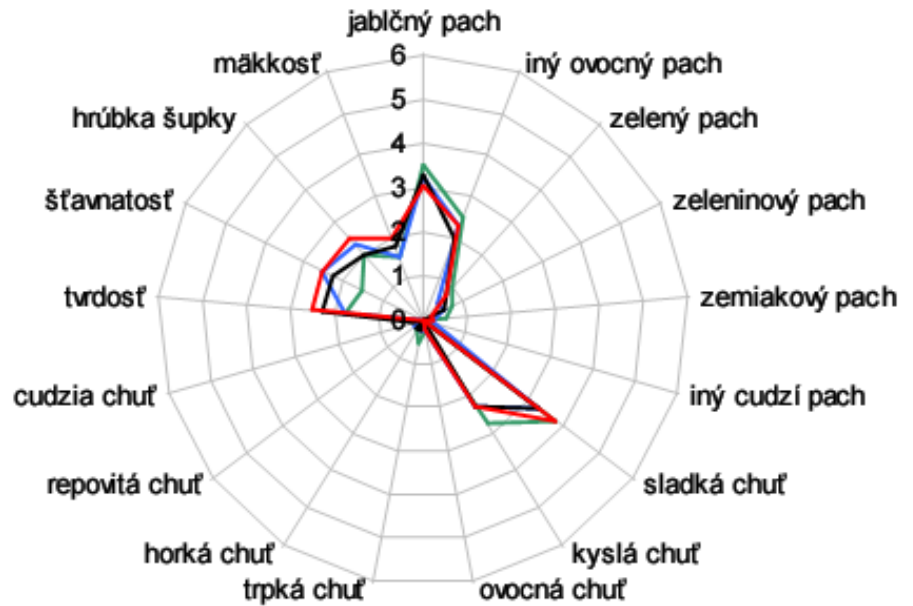
- Trained panel
- Standardized environment, test and conditions
- amount of people is limited on lab spots
- statistical analysis is part of measurement



Sensory analysis is multidisciplinary

connected on:

- Psychology
- Physiology
- Sociology
- Biology
- Chemistry
- Economic science (Marketing/Neuromarketing)
- Sensometrics



Legislative I.

- **Laboratory methods standards**
- **ISO 8589** General guidance for sensory evaluation
- **ISO 5496** – Training of assessors for odour recognition.
- **ISO 8586:2014** Selection, Training of Panelist/Experts for sensory analysis ...

Legislative II.

- Description test
 - Sensory Profile
 - Flavour Profile
 - Texture profile
- **ISO 6658 čl. 5.4.2**
 - **ISO 13299**
 - **ISO 6564**
 - **ISO 11036**

Legislative III.

- EHK Norms (DOOR)
- Private Standards (BRC, IFS)
- ASTM (America)



Designation: E 1879 – 00

**Standard Guide for
Sensory Evaluation of Beverages Containing Alcohol¹**



Designation: E 2299 – 03

**Standard Guide for
Sensory Evaluation of Products by Children¹**



Designation: E 1490 – 03

**Standard Practice for
Descriptive Skinfeel Analysis of Creams and Lotions¹**



E 1490 – 03

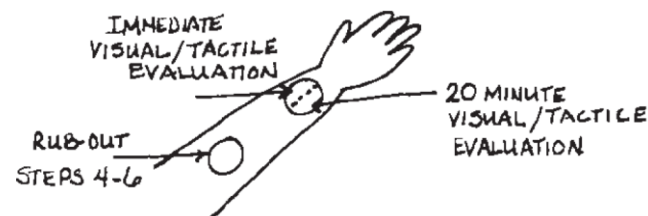
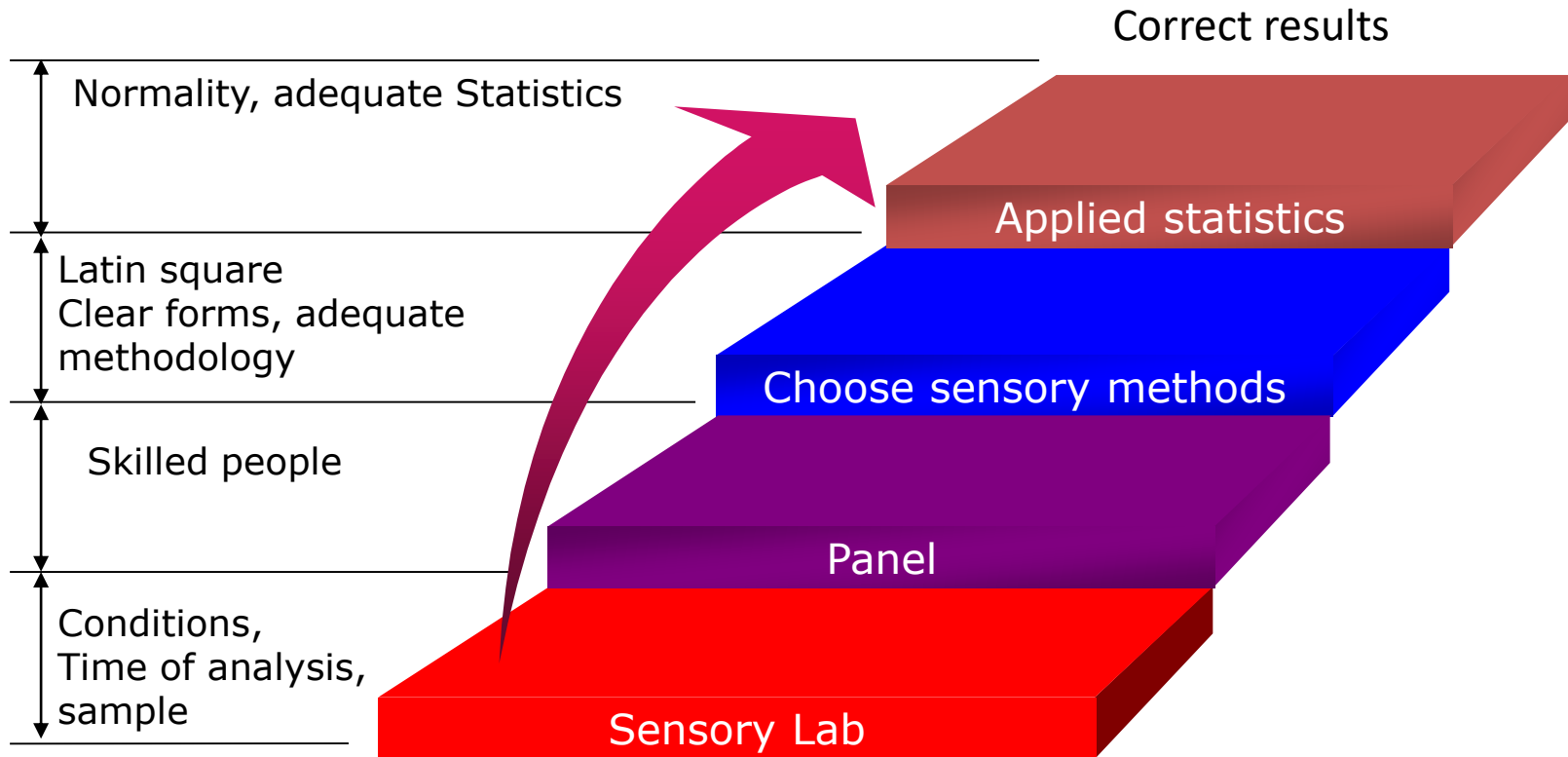
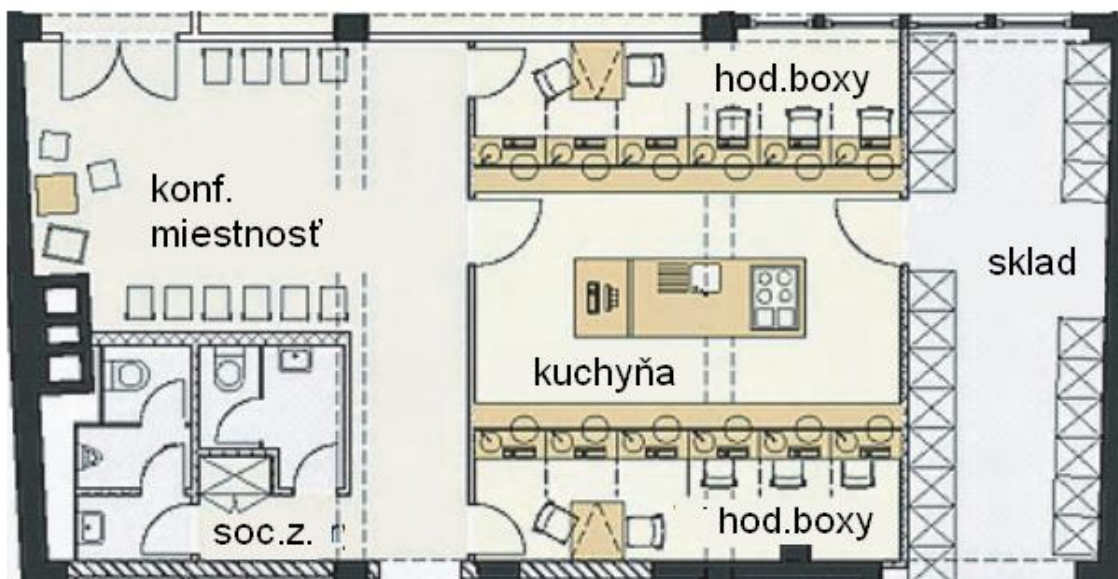
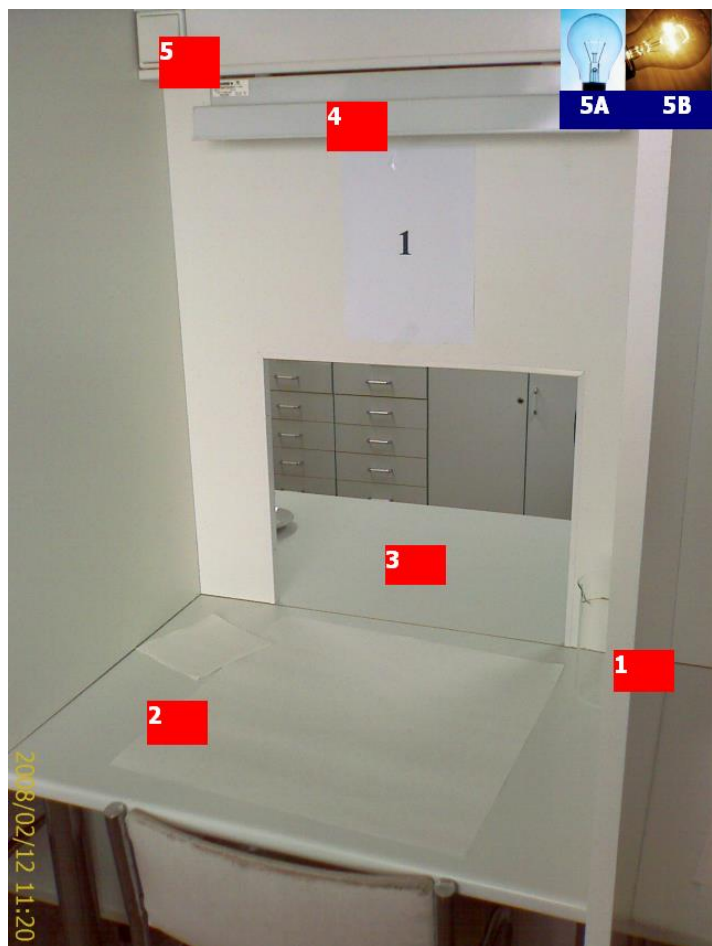


FIG. X2.4 Diagram for Test Evaluations

Sensory analysis instruments



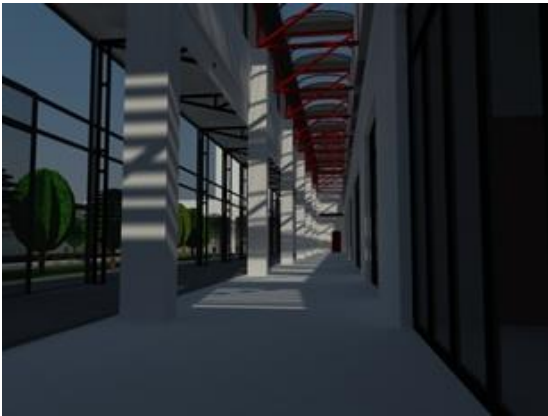
Sensory Lab (Accreditation Body Lab, Bratislava)



Sensory Lab (University of Veterinary, Košice)



Instrumental Sensory Analysis Equipment



Sample

- Enough amount
- Representative
- Eating temperature
- Anonymous
- 3 digit code marked
- Palate cleaners



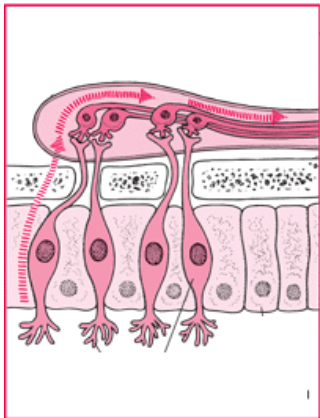
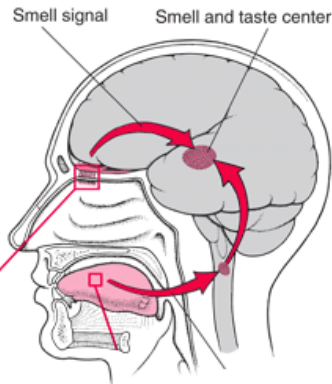
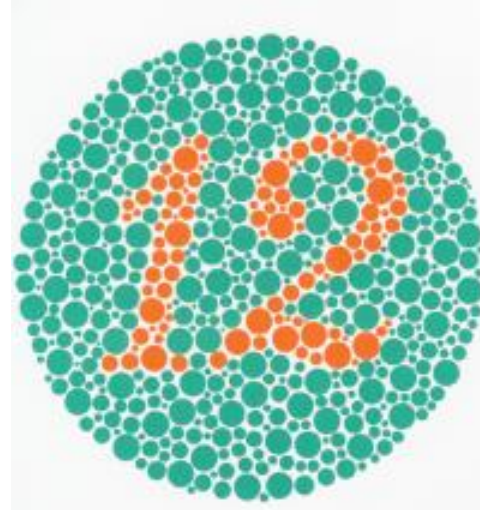
Assessor

- calm, friendly
- objective for socio-state
 - creative with good vocabulary
- not smoker/drinker
- younger better senses
- elder better experience
- women better thresholds
- men better taste memory
- **trained/ certified**



Certification process I.

1. Ishihara tests



2. Unknown odours



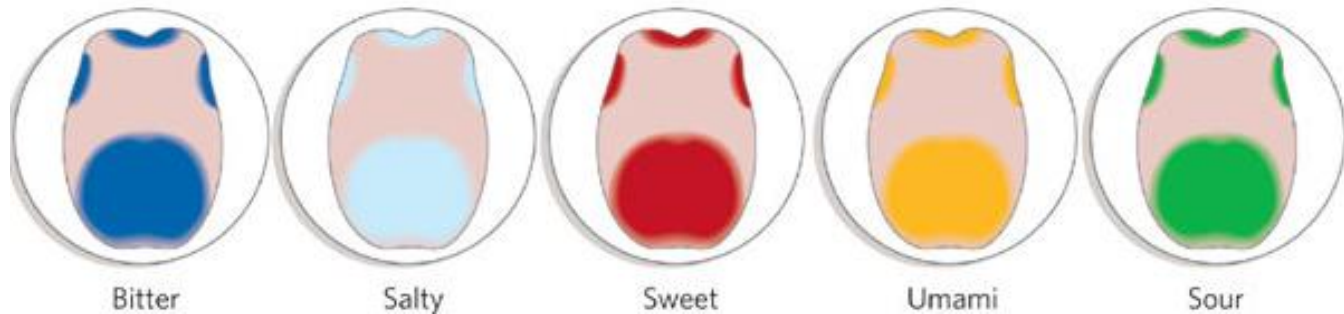
3. Tresholds for 5 basic tastes

Certification process II.

4. Taste memory (Intensity tests)



5 - 7. Ranking of smell/taste



Certification process III.

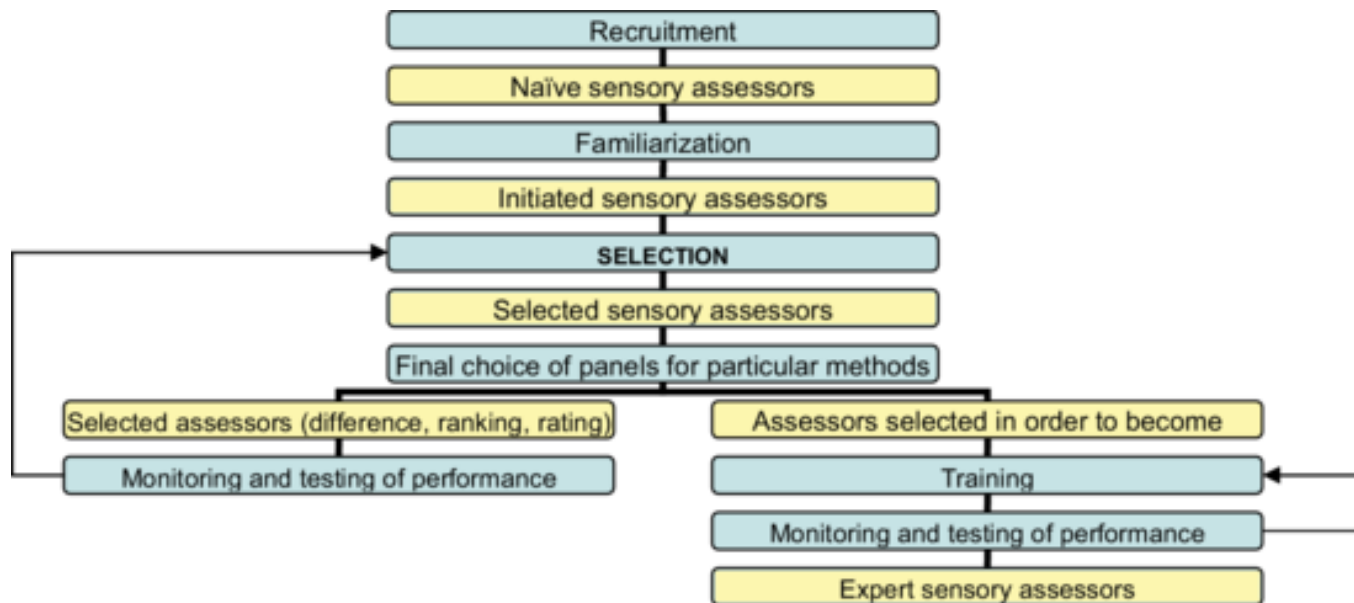


8. Ordering of colour intensity



9. Gelatine elasticity ranking test (ISO 8586:2014)



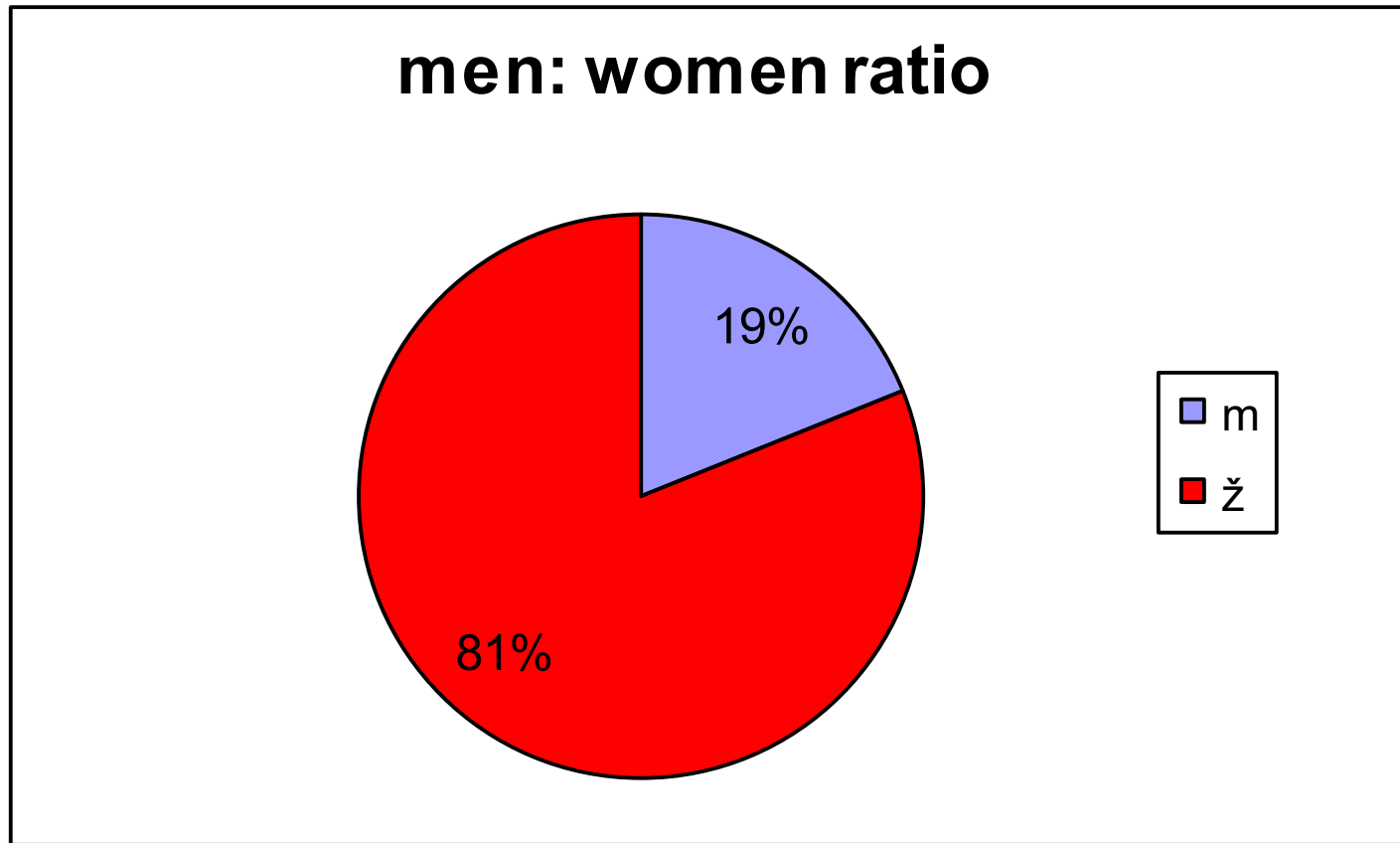


Slovak Certification Bodies

- **Educational Courses of Sensory Analysis at SUA (MoES)**
(Softdrinks, Beer, Wine... Coffee in Progress)
- **Accreditation Process of Selected Sensory Assessors for Food and Animal Feed by ISO 17024:2012 (SNAS)**
(Eurofins/BEL-NOVAMAN)

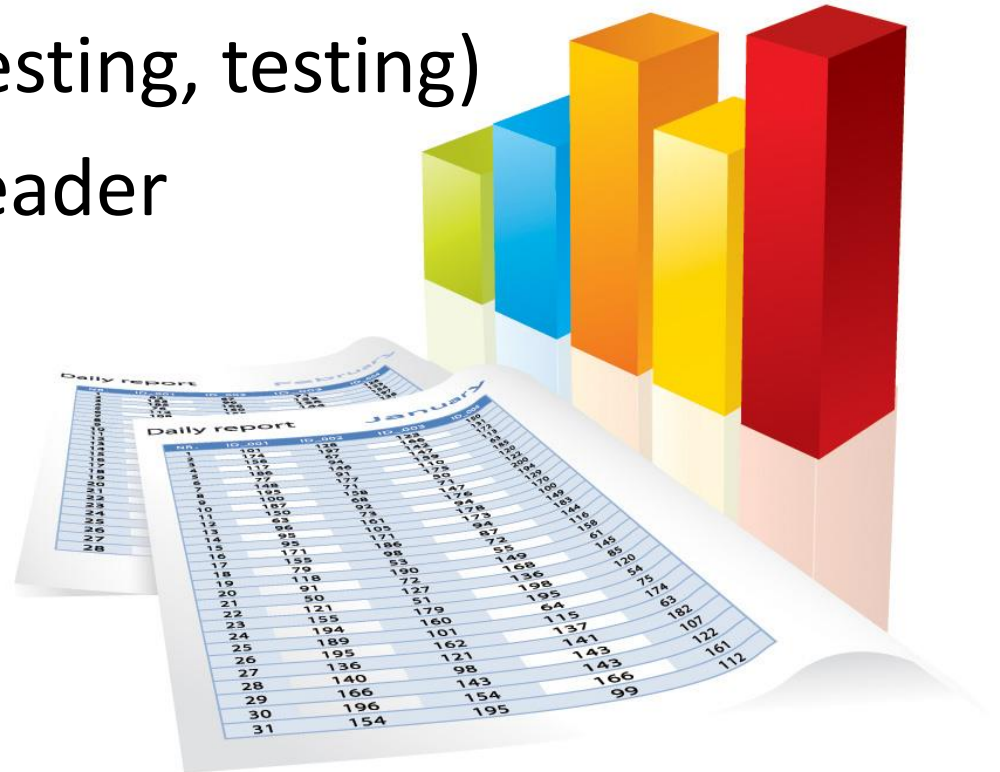


Comparison of Certified Slovak Assessors

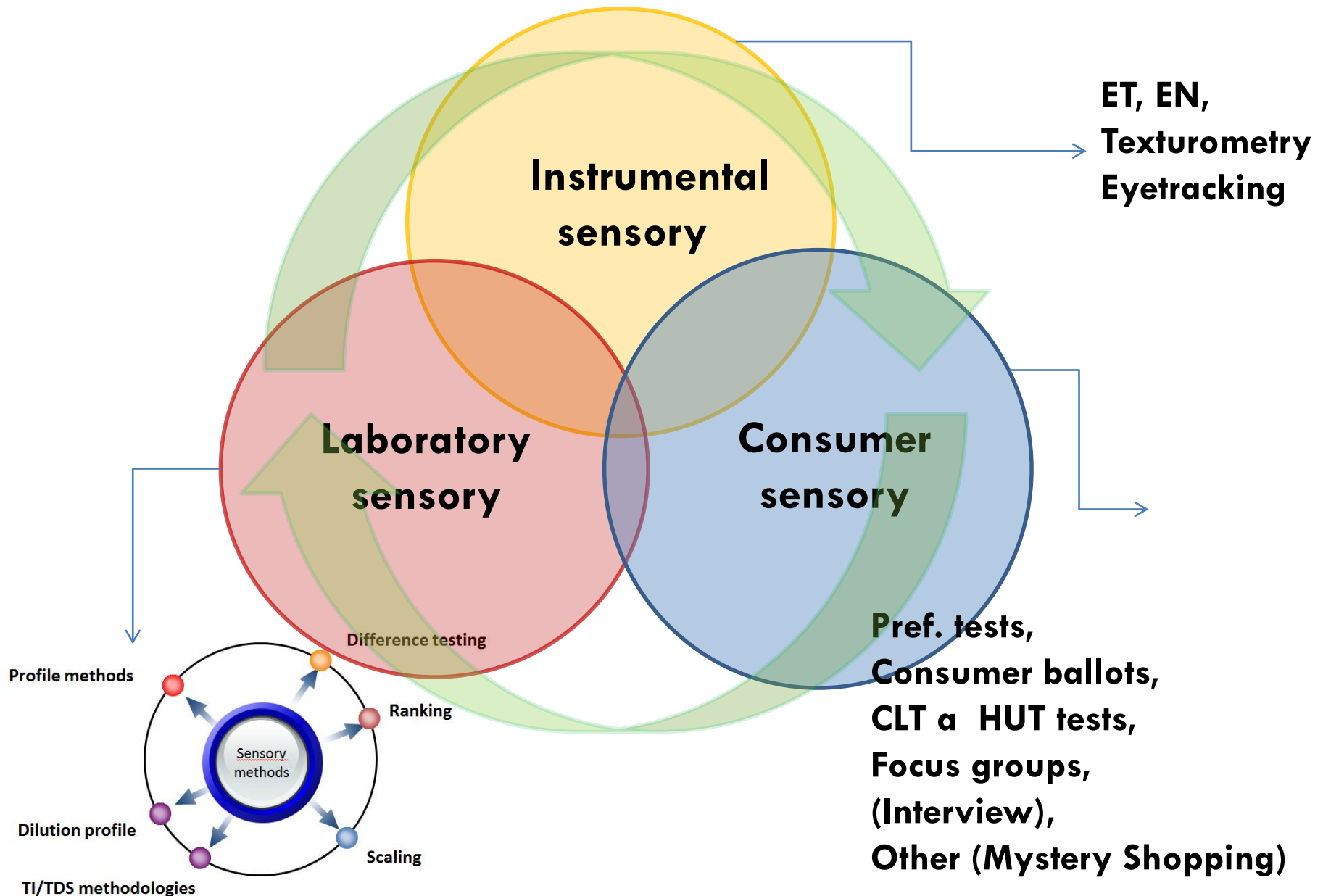


Methodology

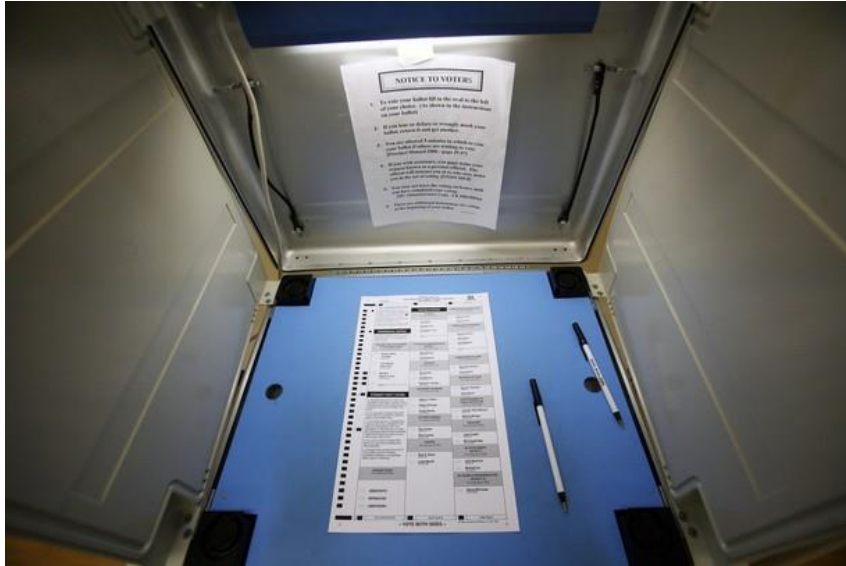
- **Clear forms**
- (effective, focused on problem)
- **Correct method choses**
- Dry-runs (testing, testing, testing)
- Responsible panel leader



(sensory food science)



Classical „paper“ forms



Experimentálny formulár pre bodový test (5 bodová stupnica, code128)

Kontakt (meno, email, IM, telefón) *nepovinné

Hodnotená komodita Pohlavie M Ž Vek 15+ 25+ 35+ 45+

Dátum 1 2 3 4 5 6 7 8 9 10+ 20+ 30+ / 1 2 3 4 5 6 7 8 9 10 11 12 / 2009 2010 2011

Celkový vzhľad (atraktivita):

Zlý nevyhovujúci priemerný dobrý vynikajúci

||||| ||||| ||||| ||||| |||||

Vôňa :

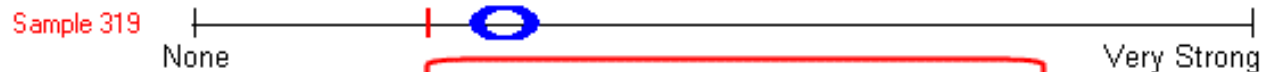
Odpudivá nevyhovujúca priemerná dobrá vynikajúca

||||| ||||| ||||| ||||| |||||

Sensory software

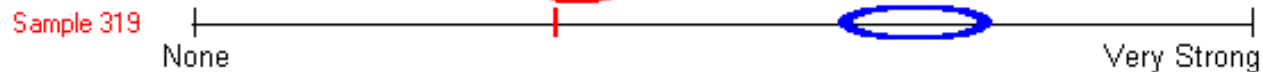
Please evaluate **Sample 319** for following FLAVOR attributes:

Bitter

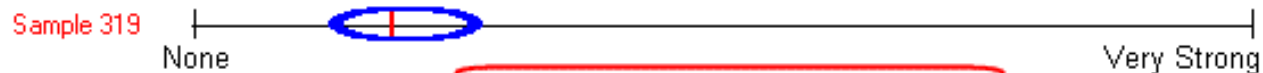


Panelist mark out of range

Sour

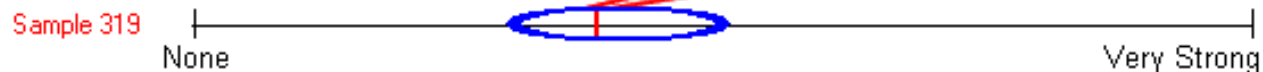


Sweet

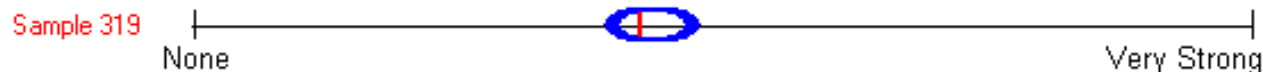


Panelist mark in range

Citrus



Berry



Next Question

Feedback

Sensometrics

- „treat“ bad results
- Classify products to groups
- Analyze a panel performance
- Visualize results



Thank you for your attention



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