### كـفـــاءة المختـبـرات LABORATORIES PROFICIENCY

المؤتمـــر الخليجـــي الأول لكفــــاءة المختـبــرات FIRST GCC CONFERENCE FOR LABORATORIES PROFICIENCY

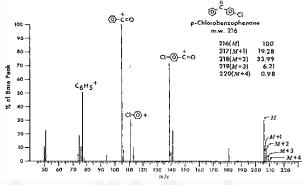




# IMPORTANCE OF PT FOR FOOD AND ENVIRONMENT LABORATORIES







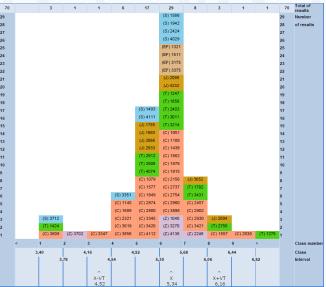




#### **Description of a PT**











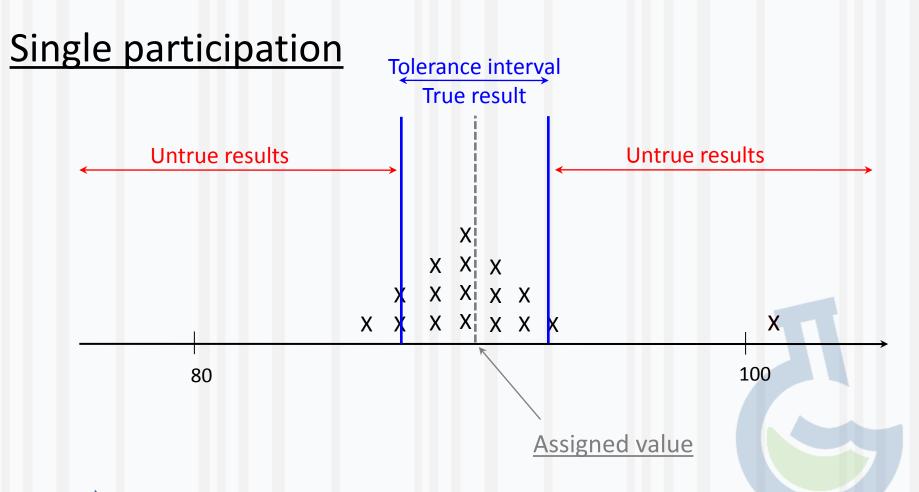


### Different objectives of taking part to a PT?

- In-house use: tool for the quality of the lab
- Multisite participation: compare and harmonize the data of a group
- Obtaining accreditations
- Approvals from other organisms: example of the approval of the French Ministry of Environment



#### **IN-HOUSE USE**





Position of the laboratory for one level, one matrix, one day



#### **IN-HOUSE USE**

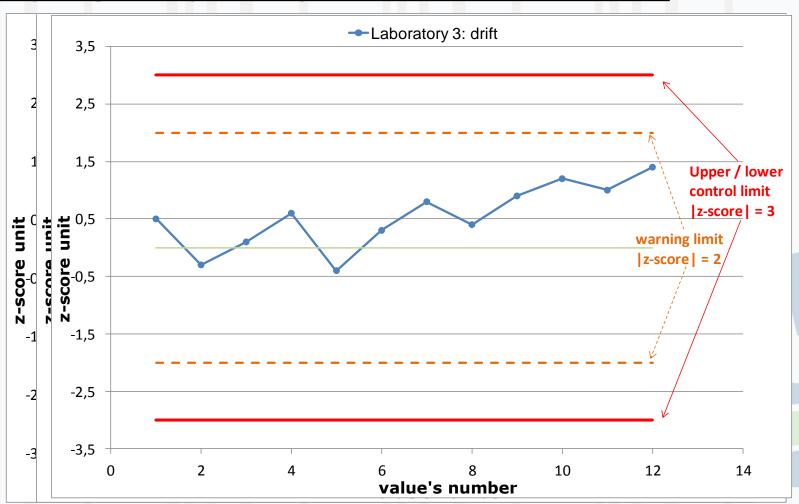
#### Some advantages of a PT program participation

- Tend more to treat the samples as routine samples
- Various matrices: fruits/vegetables, dry/wet products...
- A full range of values: from LQ to high contents
- Detection of bias / drift
- Uncertainty data (bias + within laboratory reproducibility)



#### **IN-HOUSE USE**

#### PT program participation: control charts





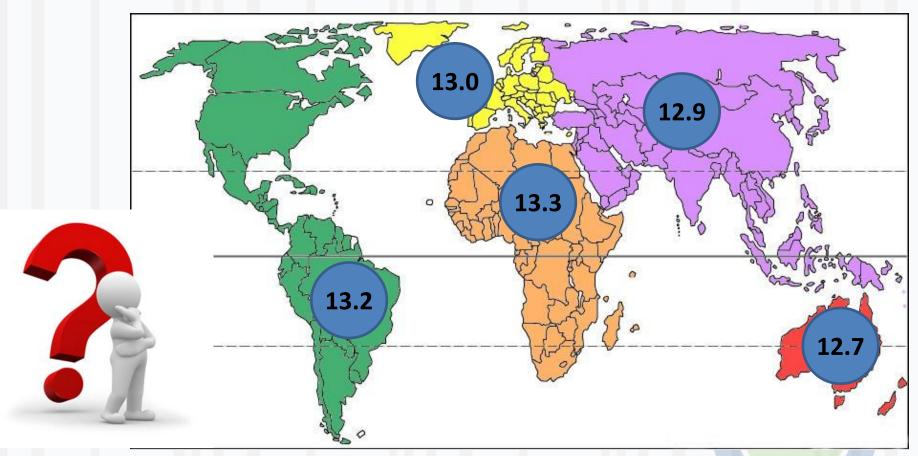
#### **MULTISITE PARTICIPATION**

 Registration of all or several sites of a same group to an existing PT

Creation of a custom dedicated PT for the group



#### **MULTISITE PARTICIPATION**



Difficulties: different materials, methods, regulations,...

Goal: follow the quality of each site and detect weak link site



#### **MULTISITE PARTICIPATION**

#### The benefits of the PT:

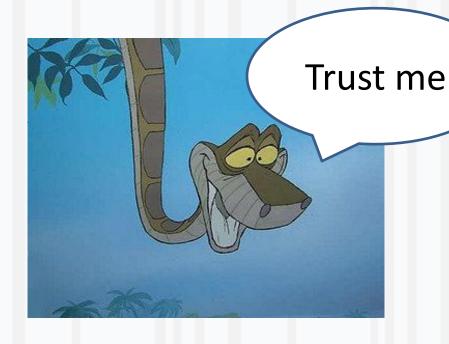
- Comparison of the data in the group (site, method,...)
- Point out the differences and try to harmonize
- Monitoring the bias and trends of the different sites
- Establish a global performance of the group



Help to ensure production data from every site

# Bipe & External recognition: accreditation

## and approval



I don't trust anyone anymore





#### **ACCREDITATIONS**



- Accreditation is the recognition of both organization skills and technical abilities
- It brings confidence in the provided results between the protagonists
- In highly regulated fields such as food and environment, accreditation is often essential in the competitive economic market, and it can sometimes be mandatory for some analyses.



#### **ACCREDITATIONS**



- The requirements of an accreditation body, from a country to another, may vary.
- However, PT results remain an essential step toward accreditation:

ISO 17011:2005 "The accreditation body shall establish procedures to take into account, during the assessment and the decision-making process, the laboratory's participation and performance in proficiency testing"



#### **ACCREDITATIONS**



ISO 17025:2005 "The laboratory shall have quality control procedures for monitoring the validity of tests and calibrations undertaken. The resulting data shall be recorded in such a way that trends are detectable and, where practicable, statistical techniques shall be applied to the reviewing of the results. This monitoring shall be planned and reviewed and may include, but not be limited to, the following:

•...b) participation in interlaboratory comparison or proficiency testing programs..."



#### Approvals from other organisms



- Approvals in sectors with low number of accredited laboratories and/or to set specific conditions
- Allow to apply for some markets of these organisms or to be reference laboratories for some analyses
- Recognition can be valuable for the regular customers
- Mainly based on PT results



# **Example of the approval of the French Ministry of Environment**



- Accreditation is necessary but additional specifications are required
- Requirements in terms of numbers of tests and concentrations
- Results of PT have to be completed through a dedicated website
- An half day is dedicated to the approval at the occasion of an audit of accreditation (but separately, with not link)



### Conclusion

Despite interlaboratory tests can be lived by some laboratories as a necessary exam for accreditations or approvals from some organisms, it should mainly remain a very powerful tool for laboratories to evaluate and improve their performance.



### Thank you for your attention

