

Information from the KCDB Office

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Bureau
| **I**nternational des
| **P**oids et
| **M**esures

CCT/2022-39



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KCDB 2.0

- implemented in October 2019
- help documents, 14 video clips and FAQs
available at <https://www.bipm.org/en/cipm-mra/kcdb-help>
- **Capacity Building and Knowledge Transfer** sessions given to RMOs, Writers, TC Chairs, Pilots ...
- improvements added on a regular basis

KCDB 2.0 : CMC Uncertainty equations



Quantity based equations (2018)

36 equations are subject for revision:

AR, AT, CA, ES, GR, ID, IT, NZ, PT, SG, SI, US, UY

FAQ: How to I write a quantity-based equation requested for the KCDB ?

How to convert?

Example: $Q [22 , 0.66 T]$, T in K, U in μK

Becomes: $Q[22 \mu\text{K} , 6.6\text{E-}7]$

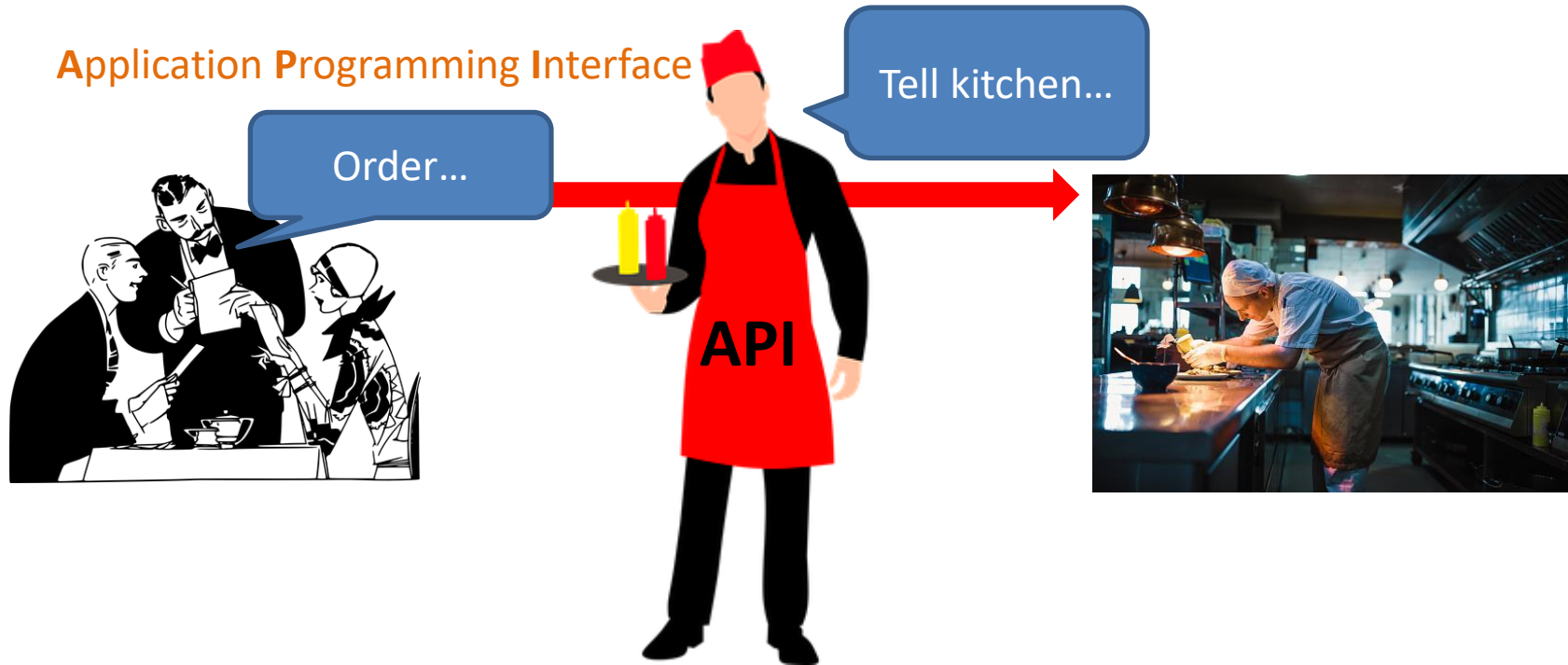
Example: $0.0 + 0.1 t$ t in $^{\circ}\text{C}$, U in $^{\circ}\text{C}$

Becomes: $0.0 \text{ }^{\circ}\text{C} + 0.1 t$

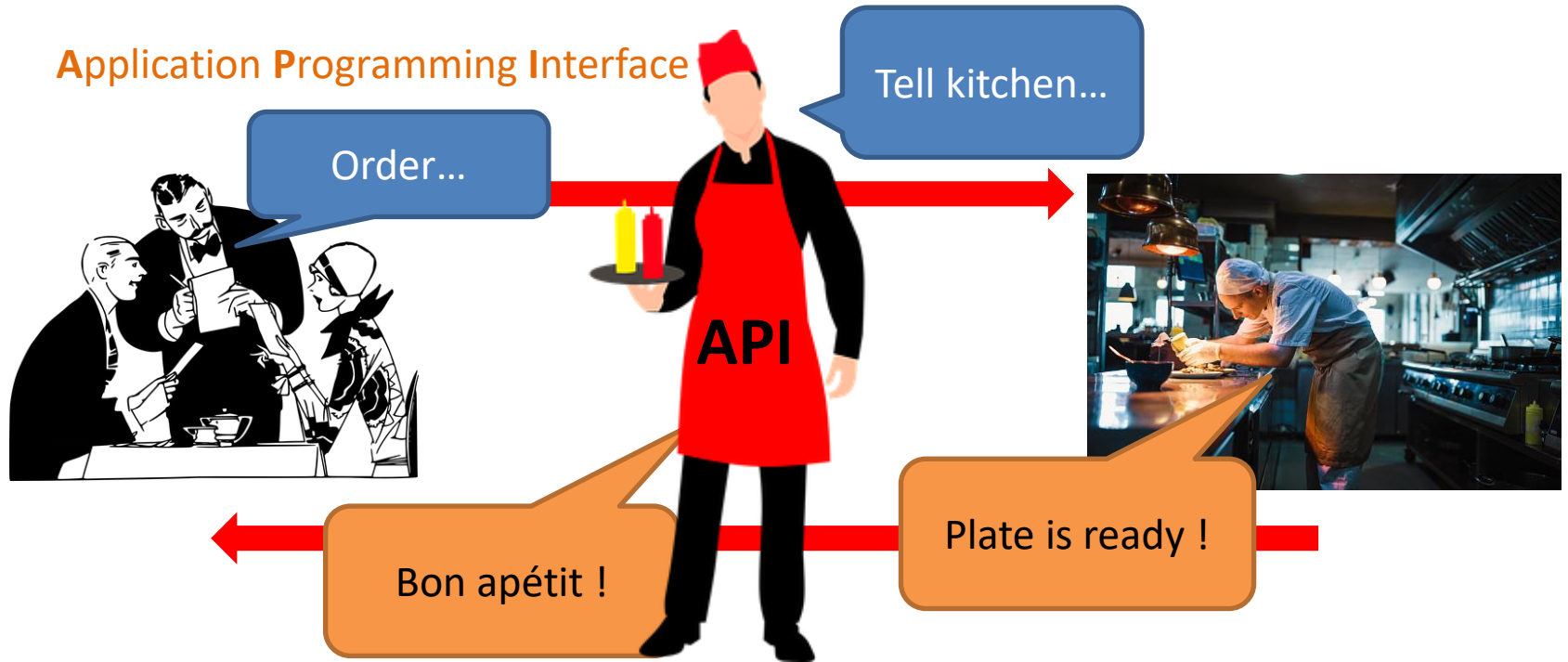
KCDB 2.0 : Digitalization



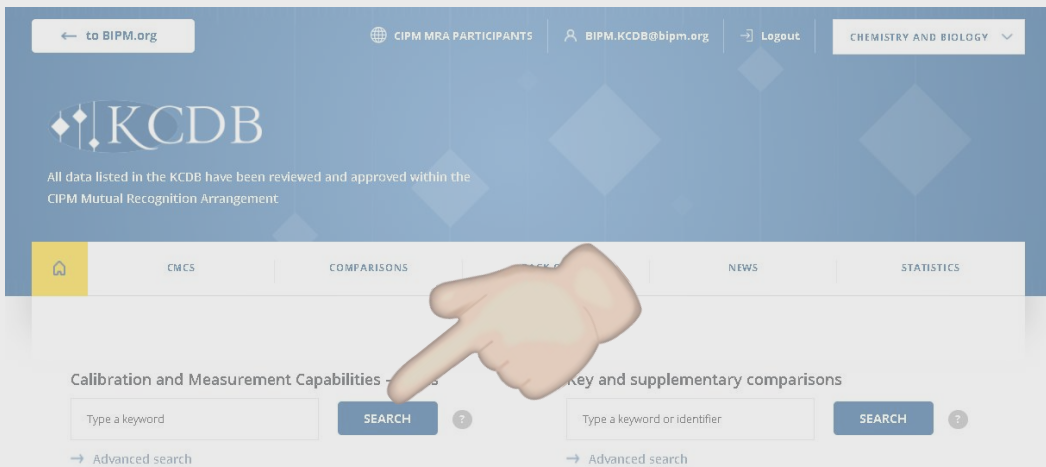
What is an API ?



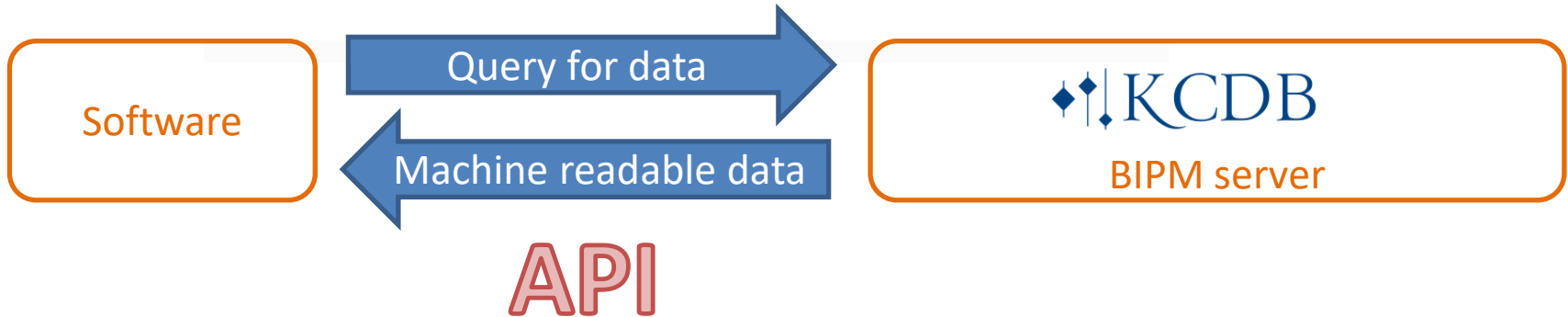
What is an API ?



KCDB 2.0 : Digitalization

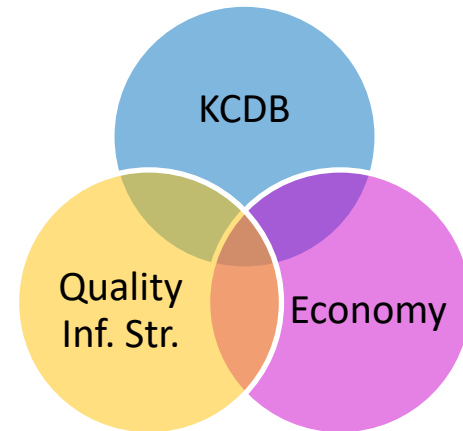


... use an API.



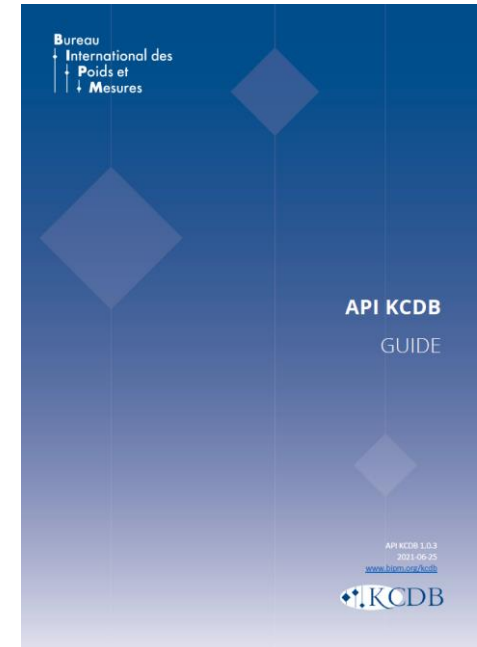
Why an API ?

- The API can be integrated into any website to include queries on the KCDB
- Gives possibility for extended statistics
- Allows a « Big Data » approach
- Precursor for digital CMCs



API KCDB Status

- Implemented June 2021
- Possible future need for harmonization of quantity, instrument under test and calibration method expressions



Thank you

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