



INSIGNIA



# Honey bee colonies as biomonitors of the environment

## The INSIGNIA Consortium

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A "guideline for Apicultural citizen science to use the honey bee colony for bio-monitoring of the environment"

The guideline is available on the following websites

- <https://www.insignia-bee.eu/>
- EU Pollinator Information Hive
- EU Food Safety Protection of bees

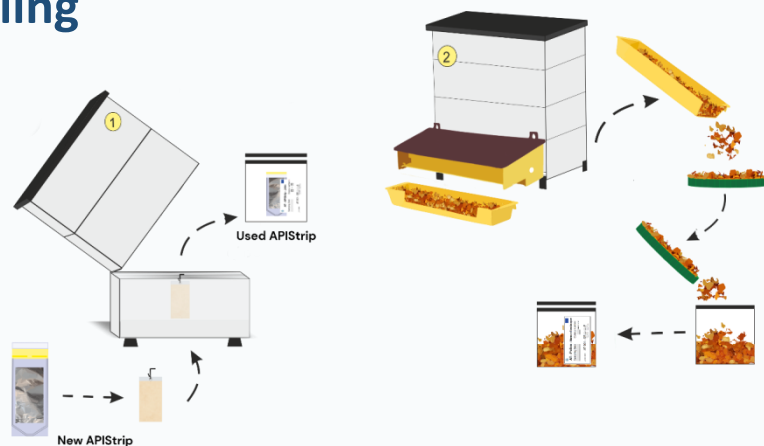
INSIGNIA study 2018-2021

## From sampling to analysis

### Set-up



### Sampling



### Sample labelling, storage and transport

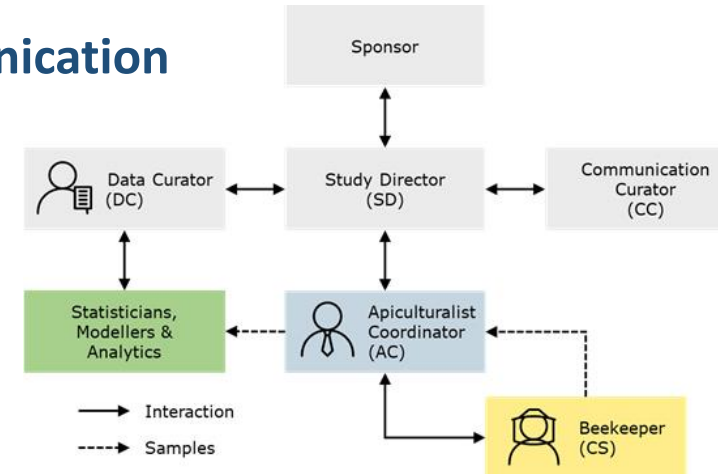


### Pesticide residue and ITS2 metabarcoding, analyses



## Communication, organisation, output

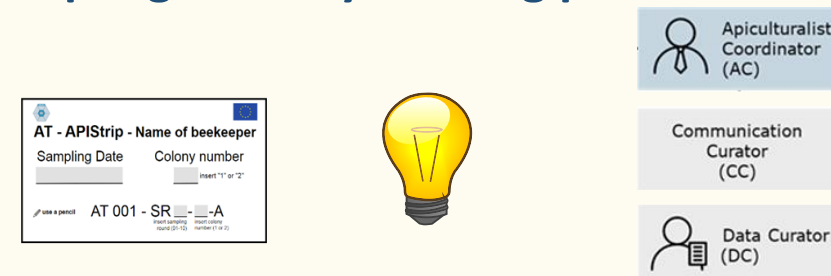
### Communication



### Instruction using picture manual, (virtual) meetings, social media and email



### Quality-controlled sequence from sampling to analysis using protocol



### Statistics and modelling

