WELCOME
MOOD CHRONICLE
YEAR 1 EVENT

RENAUD LANCELOT

PROJECT COORDINATOR, CIRAD, FRANCE

AGENDA

🎄 16:00-16:20 SESSION 1: Introduction

🎄 16:20-17:00 SESSION 2: Main achievements in 2020: focus on COVID-19

🎄 17:00–17:30 SESSION 3: Round table & conclusions of the meeting

🎄 17:30–18:00 Petite Raoul – live show

🎄 18:00–21:00 Big Top Festival

MONITORING OUTBREAK EVENTS FOR DISEASE SURVEILLANCE IN A DATA SCIENCE CONTEXT
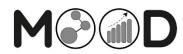
ELENA ARSEVSKA, MOOD MANAGER, CIRAD, FRANCE

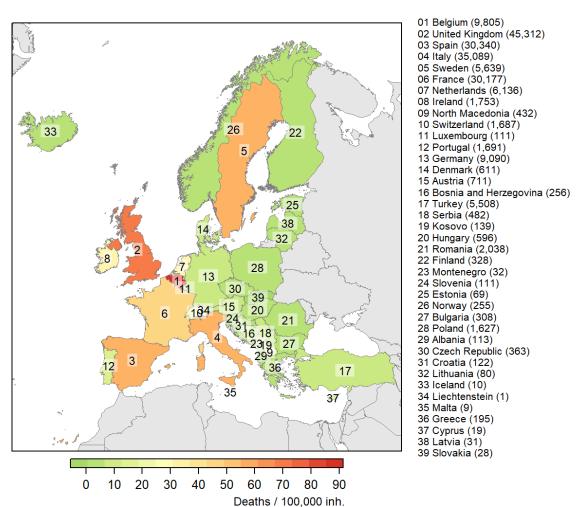ALEXANDER WOWRA, COMMUNICATION OFFICER, OPENGEOHUB, THE NETHERLANDS

GOALS

Improve the early detection, assessment, and monitoring of emerging infectious diseases

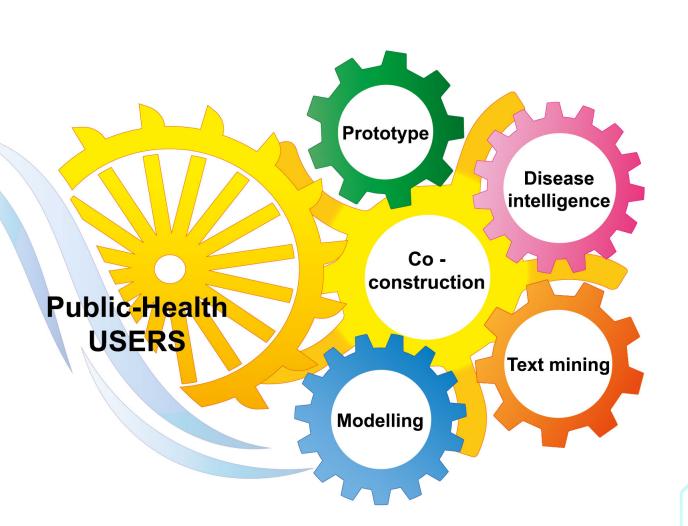COVID-19 mortality rate in Europe
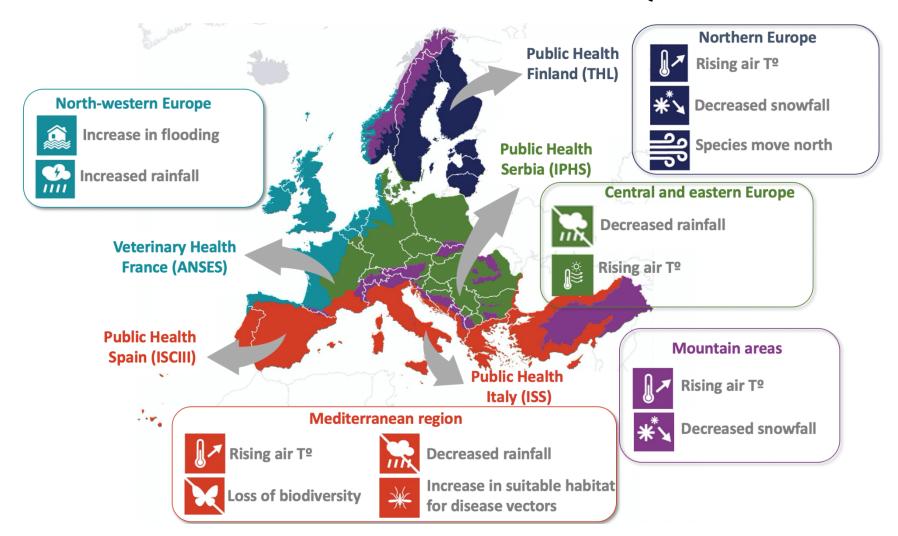at the end of the first wave July 2020

01 Belgium (9,805)
02 United Kingdom (45,312)
03 Spain (30,340)
04 Italy (35,089)
05 Sweden (5,639)
06 France (30,177)
07 Netherlands (6,136)
08 Ireland (1,753)
09 North Macedonia (432)
10 Switzerland (1,687)
11 Luxembourg (111)
12 Portugal (1,691)
13 Germany (9,090)
14 Denmark (611)
15 Austria (711)
16 Bosnia and Herzegovina (256)
17 Turkey (5,508)
18 Serbia (482)
19 Kosovo (139)
20 Hungary (596)
21 Romania (2,038)
22 Finland (328)
23 Montenegro (32)
24 Slovenia (111)
25 Estonia (69)
26 Norway (255)
27 Bulgaria (308)
28 Poland (1,627)
29 Albania (113)
30 Czech Republic (363)
31 Croatia (122)
32 Lithuania (80)
33 Iceland (10)
34 Liechtenstein (1)
35 Malta (9)
36 Greece (195)
37 Cyprus (19)
38 Latvia (31)
39 Slovakia (28)

Deaths / 100,000 inh.

4

APPROACH

Co-construction of innovative tools between researchers and public-health users
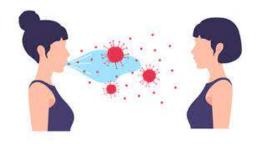
MOOD NETWORK vs. BIODIVERSITY, CLIMATE CHANGE
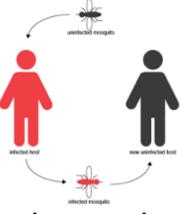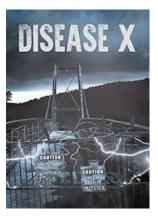
North-western Europe
- Increase in flooding
- Increased rainfall

Public Health Finland (THL)

Public Health Serbia (IPHS)

Northern Europe
- Rising air T°
- Decreased snowfall
- Species move north

Central and eastern Europe
- Decreased rainfall
- Rising air T°

Veterinary Health France (ANSES)

Public Health Spain (ISCIII)

Public Health Italy (ISS)

Mountain areas
- Rising air T°
- Decreased snowfall

Mediterranean region
- Rising air T°
- Decreased rainfall
- Loss of biodiversity
- Increase in suitable habitat for disease vectors

MODEL DISEASES

Airborne diseases

Vector borne diseases
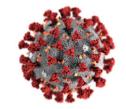
Anti Microbial Resistance

Unknown pathogens

MOOD IN THE CONTEXT OF COVID-19 PANDEMICS

- January 2020 request of European Commission, in collaboration with ECDC

- Take advantage of the MOOD network to improve disease surveillance and control capacities at national and higher level

- Strong involvement of all MOOD teams with their national public-health system

MOOD COVID-19 ACTIVITIES

Based on 63 MOOD COVID-19 activities reported as of 15th December 2020

SUPPORT TO SURVEILLANCE
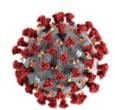
SUPPORT TO MODELLING

- Risk mapping
- Risk of introduction
- Covariates & mobility
- Genomics & phylogenetics
- Strategies for control
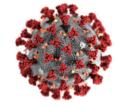- Preparedness & intervention assessment
- Disease transmission
- Visual analytics

- Disease database
- Event based surveillance
- Guidelines & SOPs
- Expert network

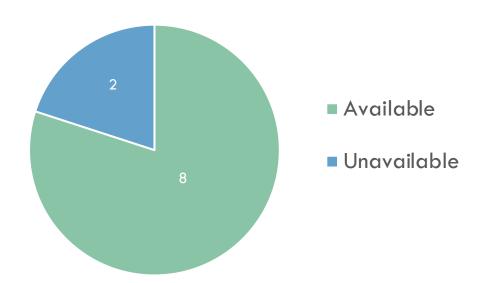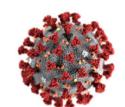# KEY THEMES OF THE COVID-19 PUBLICATIONS

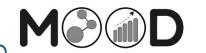Word cloud from 10 MOOD papers published in peer-reviewed journals as of December 2020
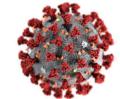
MOOD COVID-19 PUBLICATIONS

Open Data & Open Code
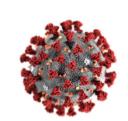

- Available
- Unavailable

MAIN ACHIEVEMENTS IN 2020: FOCUS ON COVID-19

WIM VAN BORTEL, ITM, BELGIUM

PRESENTATIONS

M Kramer (Univ of Oxford) - Digital epidemiology '10min

M Gilbert (Free Univ of Brussels) - Preparedness and vulnerability of African countries against introductions of Sars-CoV-2 '10min

G Guzzetta (Fondazione Bruno Kessler) & P Pezzotti (ISS Roma) - Impact of Nationwide Lockdown on SARS COV 2 Transmissibility in Italy '10min

S Valentin (Cirad/OFB) - Online media monitoring: opportunities for early detection of unknown disease in a One Health context '10min

ROUND TABLE & CONCLUSIONS

WIM VAN BORTEL, ITM, BELGIUM

RENAUD LANCELOT, CIRAD, FRANCE

TOPICS

🎄 Relations between science and decision making

🎄 Setting research priorities on the longer term

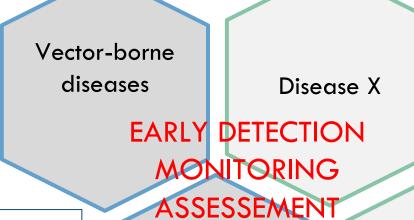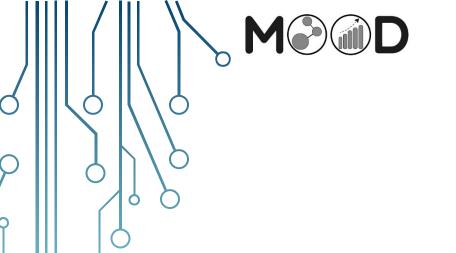🎄 Lessons learnt for future disease emergence

CONCLUSION

Vector-borne diseases

Disease X

EARLY DETECTION MONITORING ASSESSEMENT

TEXT MINING & VISUAL ANALYTICS APPROACHES

DISEASE DYNAMIC APPROACHES

Airborne diseases

All infectious diseases

THANK YOU AND
WELCOME TO THE PETITE RAOUL BAND

Rendez vous at the MOOD Christmas Big top festival (connexion with the link provided by email). 18:00-21:00 (Paris time)

MOOD room code: 237923

ENJOY!!!