



BE-PIN

Belgian Pandemic Intelligence Network



Meet the team



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David Domingo



Université Libre de Bruxelles, Institute for Interdisciplinary Innovation in Health (I3h)

Hilde Stevens

Objectives & methodology

Set up the foundations for a multidisciplinary collaborative intelligence network to address future epidemic risks by

- better access to **data**
- more advanced **analytical capacities**
- tailored tools with insights for **policy making** and communication at federal and regional level

Common 'methods':

- Analysis of Covid-19 crisis
- Stakeholder consultation
- International benchmarking
- Anticipation of various pathogens and epidemic scenarios in a timeline configuration

With support of



WP Overview



**WP 1 Collaborative
surveillance**

WP1 Collaborative Surveillance



WP Leads

Toon Braeye (Sciensano) & Brecht Ingelbeen (ITM)

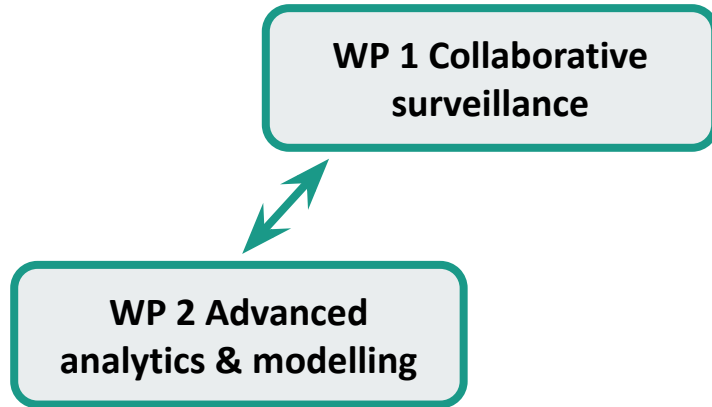
Involved institutes

UH, UA, ULB

Main objectives

- **identify information needs** across stakeholders and **related data gaps** by priority epidemic and pandemic scenario
- evaluate whether and how existing core and **enhanced surveillance data** can respond to these information needs
- **identify and validate risk surveillance data sources** responding to epi/pandemic information gaps
- **develop** and validate epi/pandemic **scenario-specific epidemic intelligence reports** defining threat/hazard/disease indicators to generate, data sources to generate indicators from and indicator thresholds generating signals
- inform the **set-up for essential prospective data collection** during pandemics such as sero-surveys, case or household information.

WP Overview



WP2 Development of an advanced analytical and modelling framework

WP Leads

Niel Hens (UH), Marius Gilbert (ULB - SpeLL) & Simon Dellicour (ULB - SpeLL)

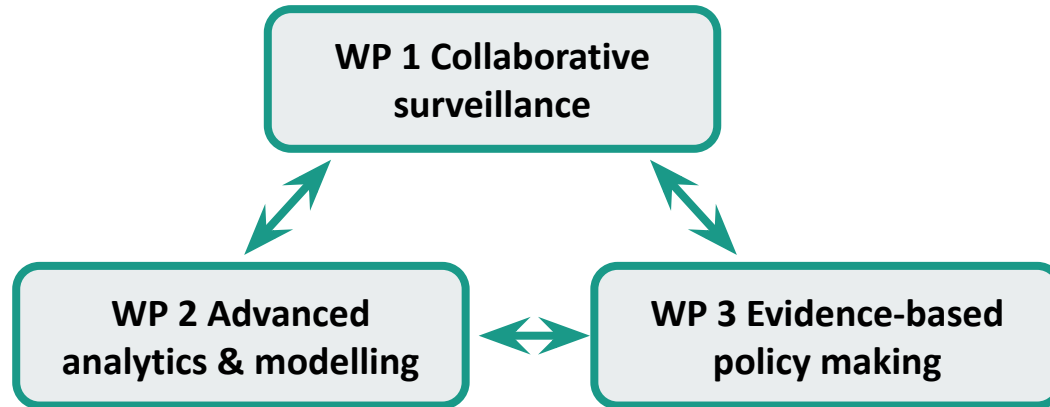
Involved institutes

ITM, Sciensano, UA

Main objectives

- collaboratively **evaluating the data analyses performed in the context of the COVID-19** epidemic in Belgium in regard to what has been performed internationally, including the identification of missed analytical opportunities
- the development of a **comprehensive analytical framework** designed in a time-line configuration prioritising the epidemiological analyses that can be carried out at different stages of a new outbreak (pathogen X)
- the implementation of an analytical procedure allowing the **evaluation/validation of the predictive performance of epidemiological models** used for short and mid-term projections
- initiating a **scientific community of modellers**

WP Overview



WP3 Enabling comprehensive evidence-based policy making



WP Leads

Philippe Beutels (UA) & Mathias Dewatripont (ULB - I3h)

Involved institutes

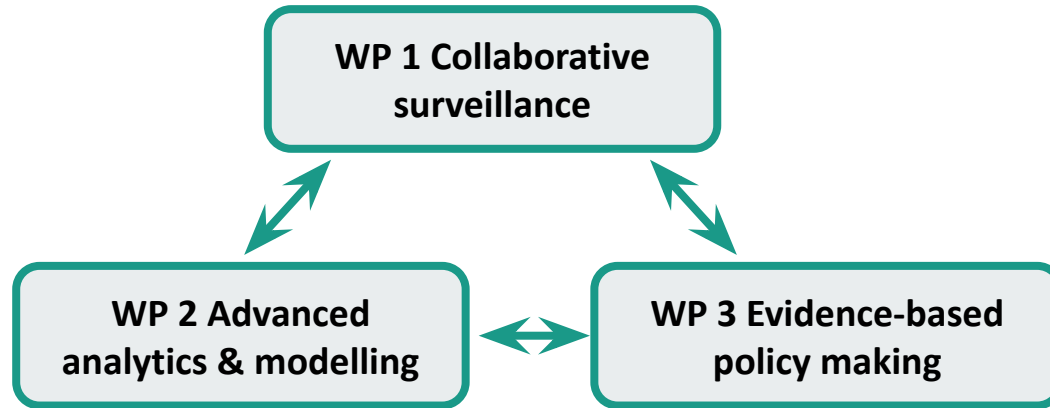
UH, KUL/IDEWE

Main objectives

- identify, articulate and elicit preferences for **optimisation targets** for a multicriteria theoretical framework for **evidence-based pandemic management**
- analyse the **impact** of social contact modifications across various demographic groups **on supply and demand patterns**
- analyse existing and create updated templates for individual-level data coupling on infection and vaccination per NACEBEL sector to **propose** sufficiently performant **data formats to examine absenteeism patterns** for pandemic management from occupational health service provider data
- analyse the **evolution of infection and absenteeism per economic sector** in Belgium and their relationships
- review and assess the **feasibility of jointly integrating in dynamic transmission models multiple outcomes** relating to mortality, QALYs, health care usage and macroeconomic impact in Belgium in real time
- formulate **recommendations to balance impacts on the economy, society, health care and population health**, in anticipation of and during a next pandemic

WP Overview

WP 4 Improving communication practices



WP4 Improving communication practices



WP Lead

David Domingo (ULB-ReSIC)

Involved institutes

UA, Sciensano

Main objectives

- **map the knowledge flows** in Belgium during the COVID-19 crisis
- assess the **visibility of scientific expertise** during the COVID-19 crisis, as opposed to disinformation
- take stock of the **communication processes that were set up (internationally)** for knowledge transfer fostering evidence-informed policy-making
- explore the **expectations of citizens** regarding the public communication of the pandemic intelligence network
- **co-creation of the communication strategies** for an effective multidisciplinary cooperation
- **identify the training needs** and co-creating the appropriate modules for **capacity building** on effective internal and external communication and knowledge transfer.

WP connections

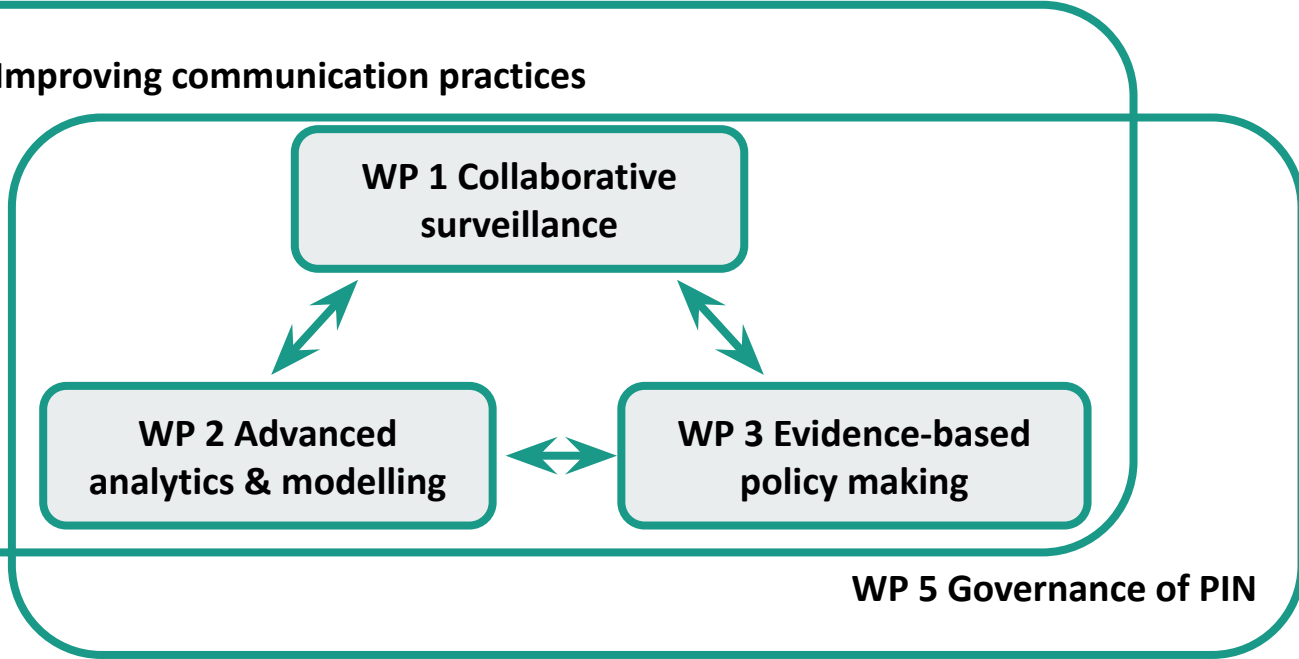
WP 4 Improving communication practices

WP 1 Collaborative surveillance

WP 2 Advanced analytics & modelling

WP 3 Evidence-based policy making

WP 5 Governance of PIN



WP5 Governance of the Belgian Pandemic Intelligence network



WP Lead

Shona Cosgrove (Sciensano)

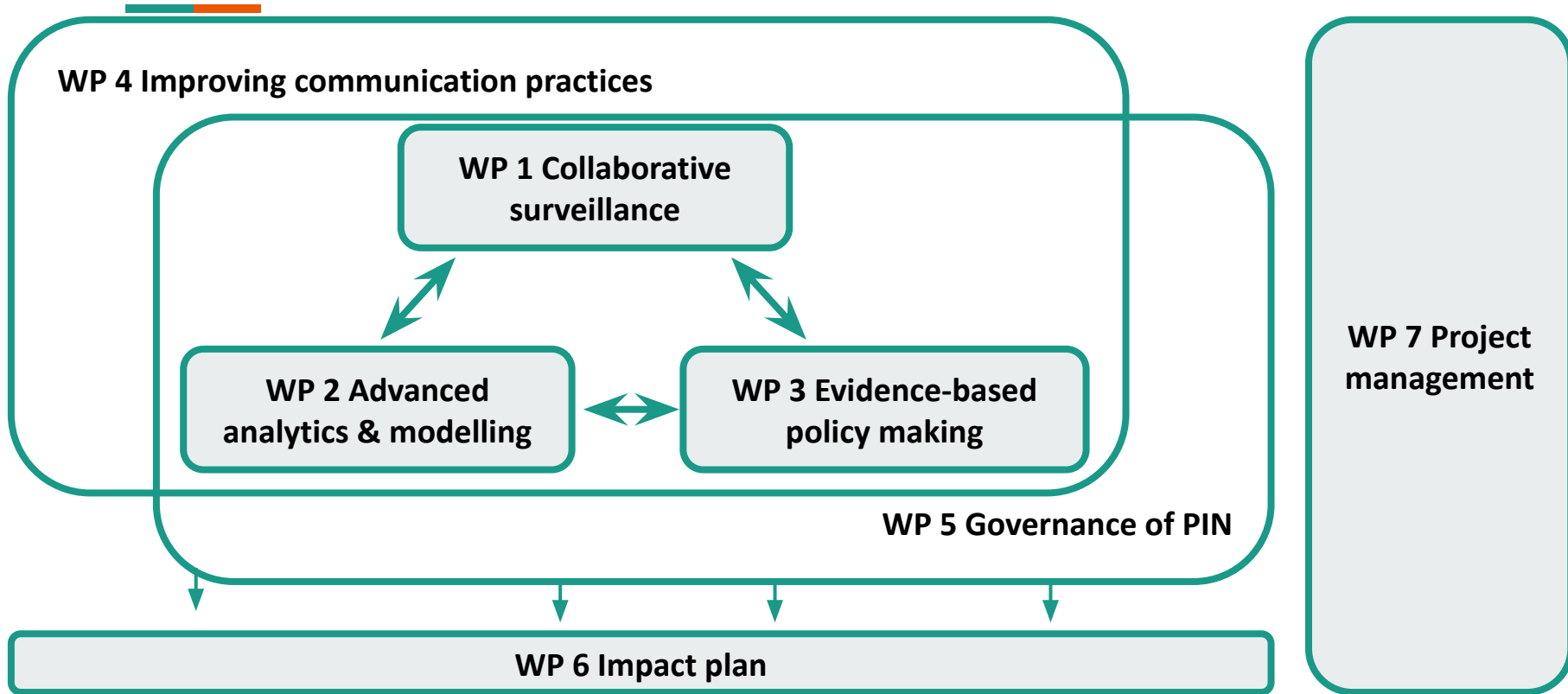
Involved institutes

UH, UA, ULB, ITM, KCE

Main objectives

- assess the **needs and potential gaps for the governance** of a Belgian Pandemic Intelligence Network including the legal, organisational and collaboration aspects
- investigate **structural options** of such a network based on **international comparison** and best practices
- **Identify structural international partnerships** essential to a performant network

WP connections



WP6 Impact plan



Stakeholders

- Public health authorities (FPS Health, food chain safety and environment - AZG - AVIQ - CoCom - RIZIV-INAMI)
- Economical parties (High council for prevention and protection at work, NBB)
- Media & press (Le Soir, De Standaard, VRT)
- Belgian Health Data Authority
- Epidemiological experts
- Representatives of population groups, eg. first-line responders (Domus Medica & SSMG)
- ...

Validation of proposals by

- Use case analysis
- Multidisciplinary conference with the relevant stakeholders

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