

CEZD – Identifying Emerging Risks Through Collective Intelligence

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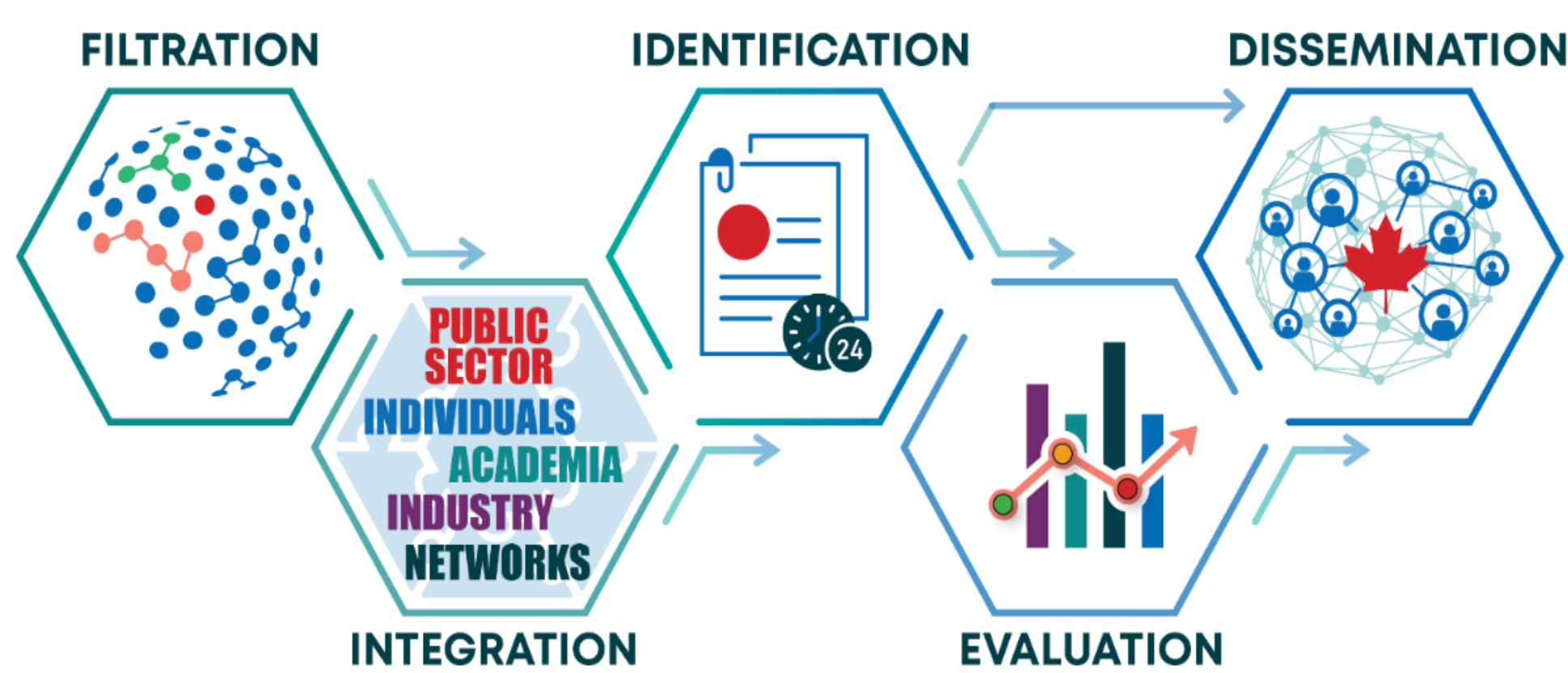


WHAT IS CEZD?

The **Community for Emerging and Zoonotic Diseases (CEZD)** is a Canadian One Health virtual, multidisciplinary network that includes partners from provincial, federal and municipal governments, industry, and academia.

CEZD was developed as an early warning system for emerging and zoonotic diseases to support Canada's animal disease preparedness and response capabilities.

CEZD conducts environmental scanning for emerging and zoonotic diseases using an event based surveillance system. The system integrates artificial intelligence, with member perspectives through rating of signal relevance to Canada. When specific signals are of concern to members, further evaluation and analysis is conducted.

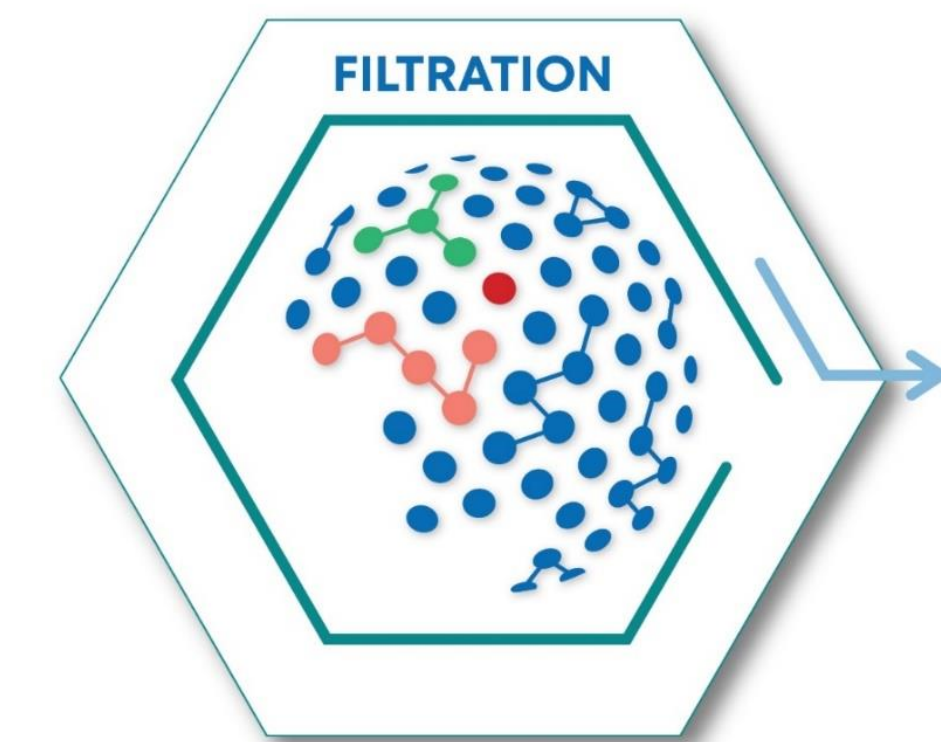


CEZD's 5-step processes for generation of early warning intelligence

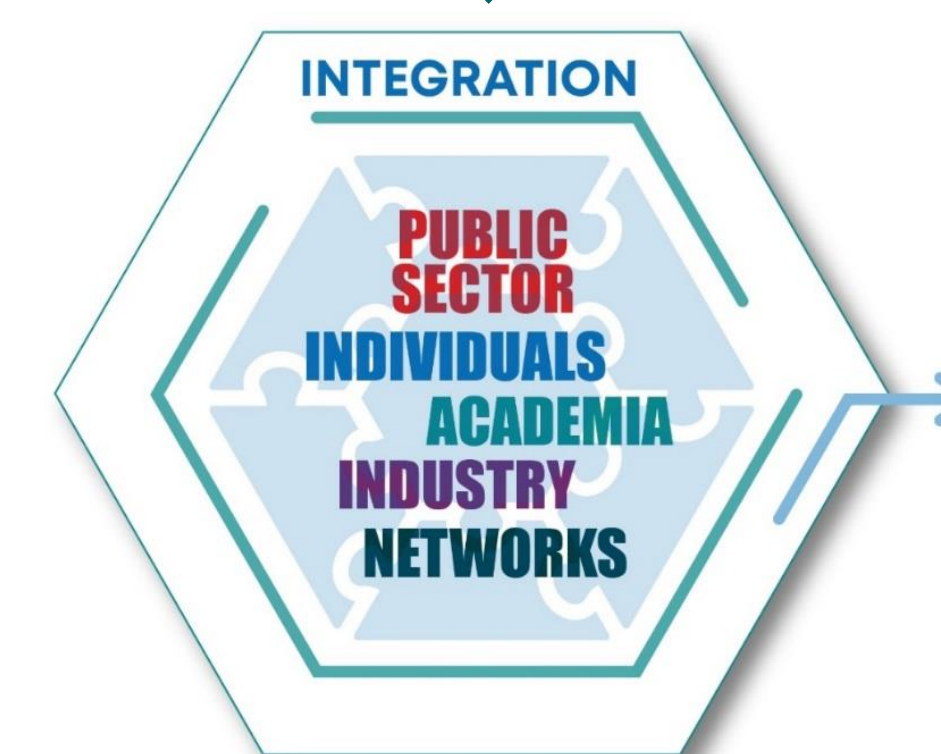
SUPPORT

The **Public Health Agency of Canada** provides the KIWI technology to enable environmental scanning. The **Canadian Food Inspection Agency** funds the CEZD Core Team. Community members provide their time and expertise to enable a successful national collaboration.

HOW CEZD WORKS



The KIWI technology **filters** large numbers of reports of emerging and zoonotic disease events from around the world. The technology effectively reduces the information burden that intelligence analysts review.



Community member perspectives are **integrated** via signal ratings within KIWI in order to determine relevance to Canada.



The core team **identifies** the signals of importance to include in the weekly intelligence report. Quarterly discipline specific reports are created to be shared with CAHSS network groups and the Canadian Swine Health Intelligence Network.



Signals may be selected as 'ping polls'. A PING may result from a signal that receives high ratings within the KIWI system, seems unusual or unexpected, requires additional interpretation, or represents an urgent matter requiring timely feedback. CEZD members can also submit any questions they may have to the community in the form of a PING.



PING results may identify a need for further **evaluation**. This can include a search for more information, an interdisciplinary discussion, or a scoping meeting. There may be additional analytical and reporting activities, such as the development of a risk profile, an analysis of hazard entry pathways, or a rapid risk assessment.

In 2021-22 two **scoping meetings** were held: i) on Yezo virus in Japan and ii) on the cross species transmission potential of Porcine DeltaCoronavirus (PDCoV). An Intelligence Brief was written on PDCoV to share the state of knowledge about this pathogen's ability to jump the species barrier.

Intelligence is only of value if it is **disseminated** in a timely manner with those who can use it for decision making and action. In addition to weekly reports, members also receive notifications of relevant disease situations, invitations to monthly calls and webinars, and any additional intelligence products that have been created.

JOIN THE COMMUNITY

If you have expertise in animal health, public health or environmental health, and want to join a virtual network of collaborators to share information on emerging risks, please visit our website, or e-mail us:

www.cezd.ca
CEZD@inspection.gc.ca

2021-2022 RESULTS

