Integrated outbreak analytics (IOA)

EPI-WIN Webinar
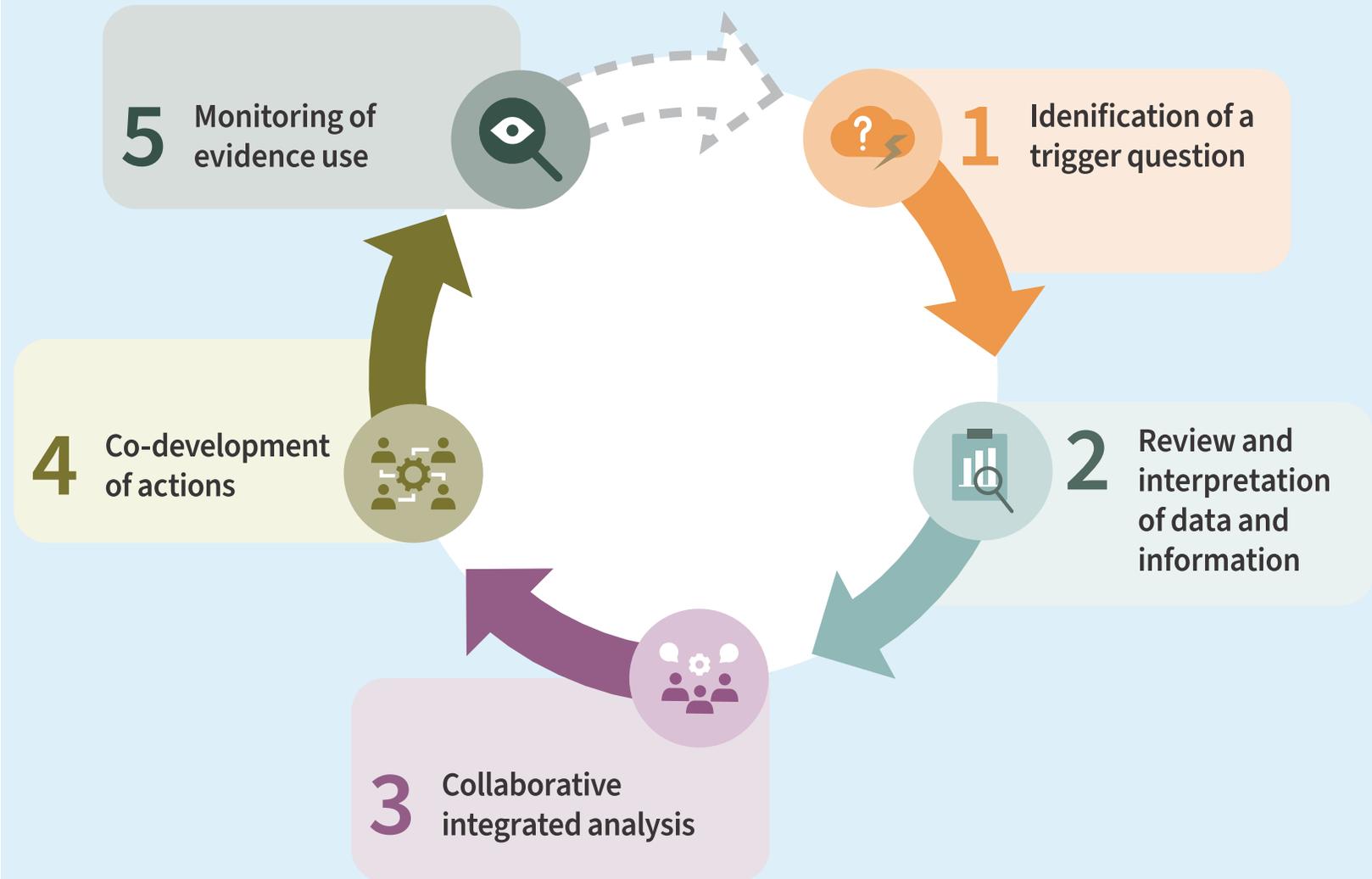
03 September 2025

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The IOA approach

What is IOA ?

The IOA process

5 Monitoring of evidence use

1 Idenification of a trigger question

2 Review and interpretation of data and information

3 Collaborative integrated analysis
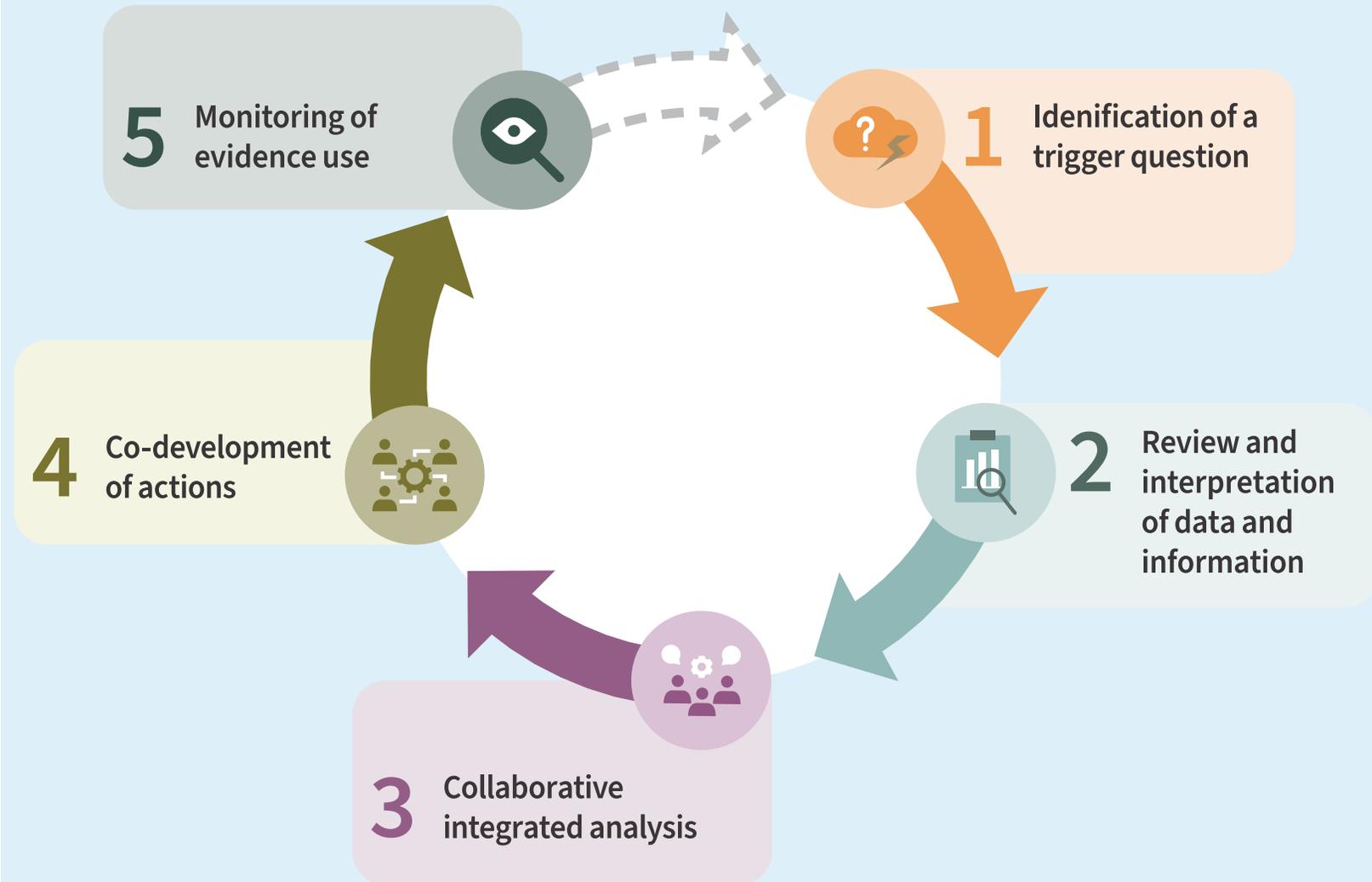
4 Co-development of actions

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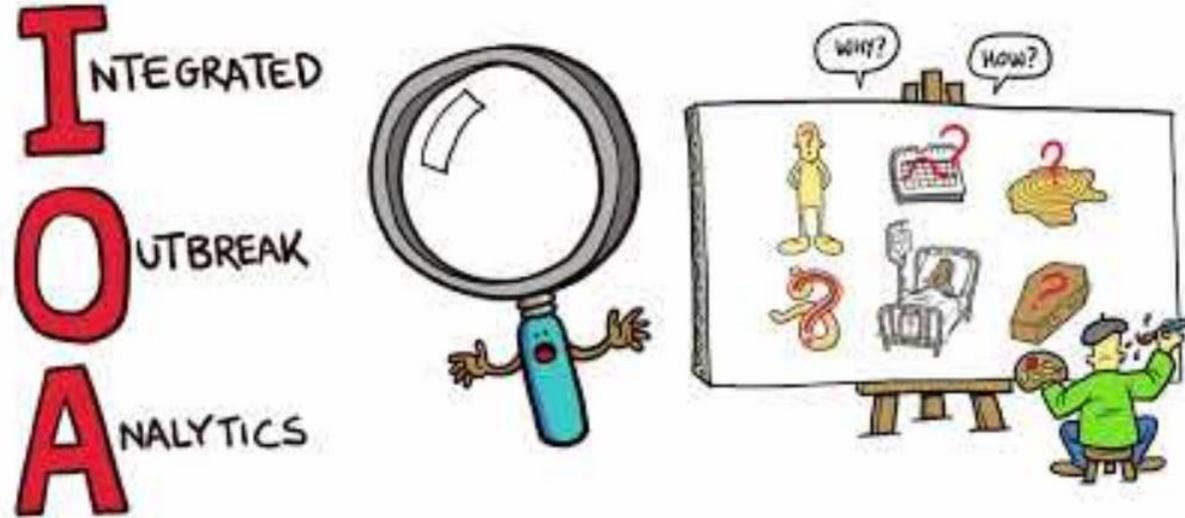
The IOA process

1. Trigger question
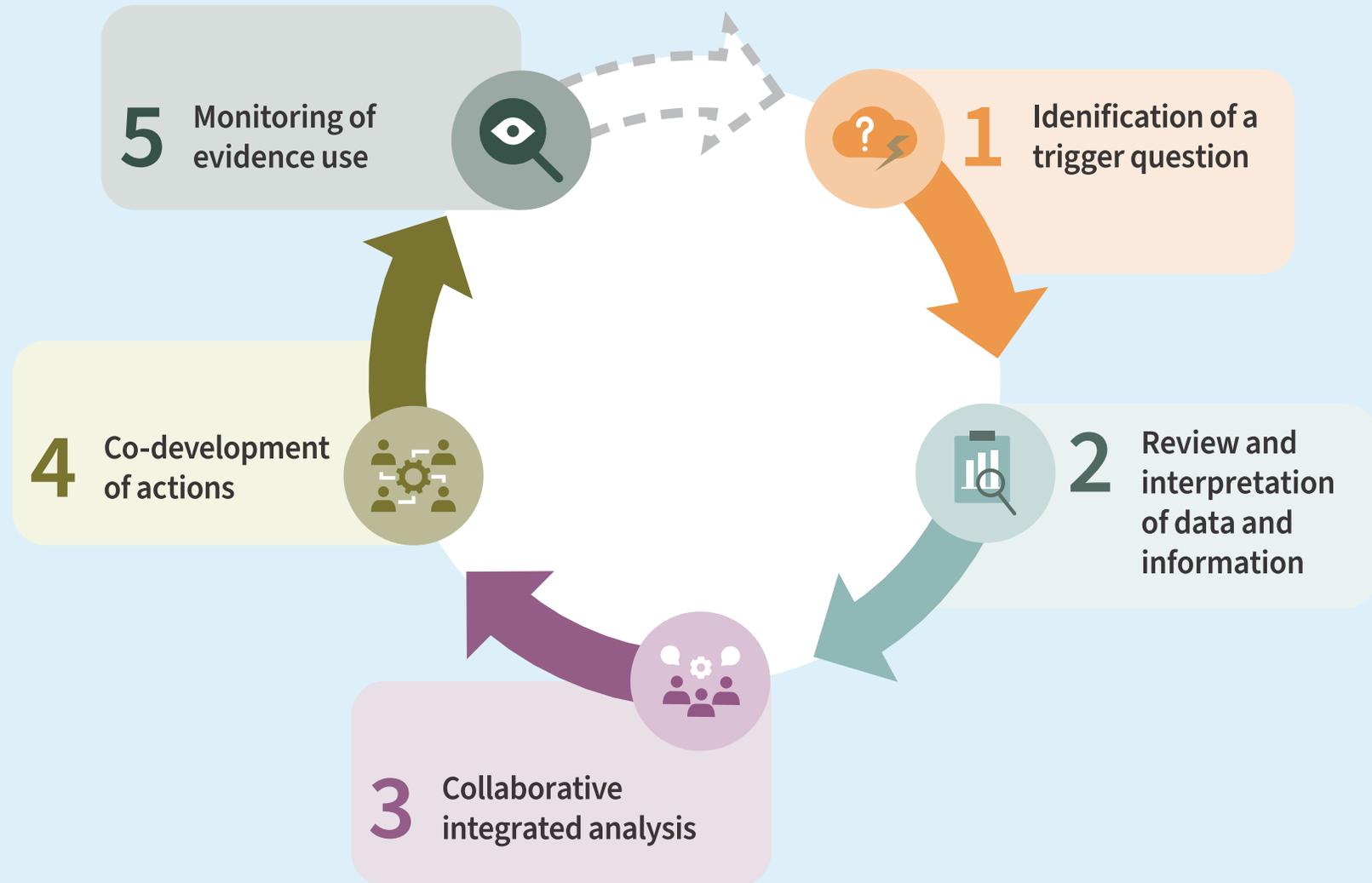
- Specific question that arises from an unusual or unexpected observation
- Once identified, needs to be validated

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The IOA process

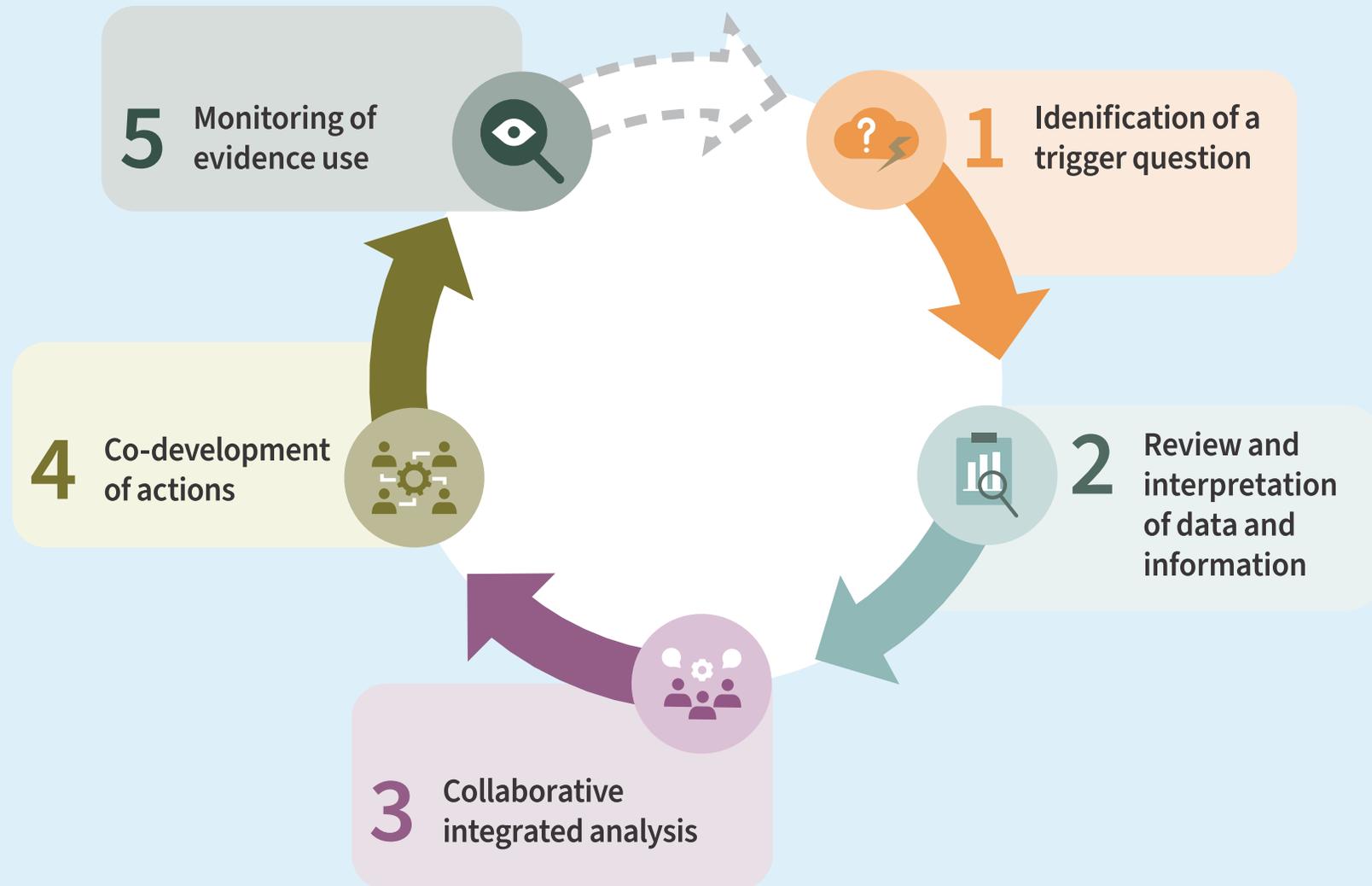## 2. Review and interpretation

- Stakeholders and partners collectively review, analyse and interpret existing data and information.
- Data and information come from a broad spectrum of sources, including economic, social, and cultural aspects of community.
- Supplementary data may be needed.

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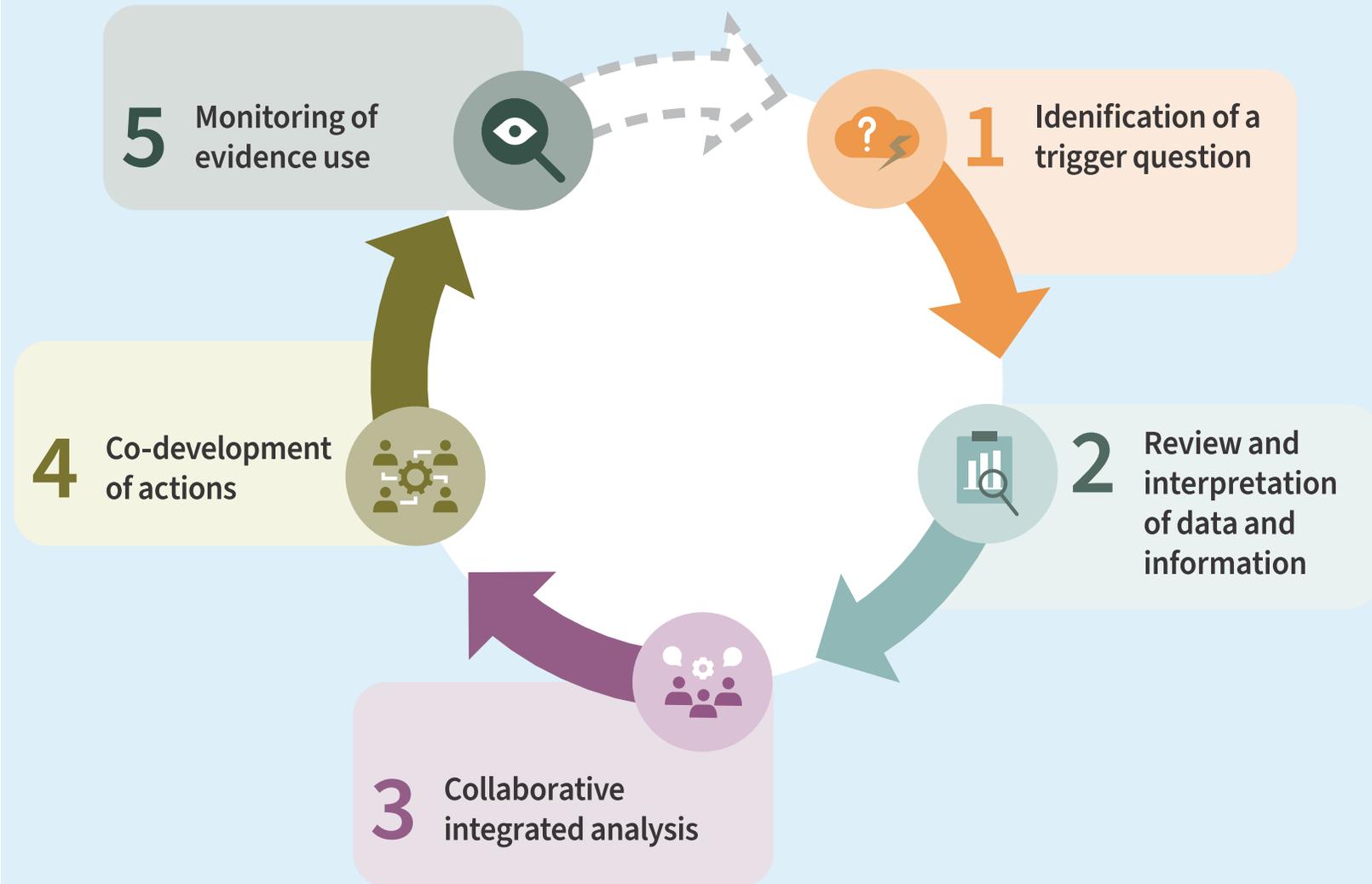**3. Collaborative integrated analysis**

- Leverages the diverse experience and expertise of partners involved in IOA
- Incorporates varied perspectives for a more holistic analysis and interpretation of the data
- Further data collection if needed

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The IOA process

**4. Co-development of actions**

- Stakeholders identify the most appropriate partners to address risks, contributing factors and underlying causes identified during the analysis.
- Practical actions are be developed as a team.
- An associated log is be developed for each partner, detailing actions, timelines, responsibilities.

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The IOA process

5. Monitoring of evidence use

- Track progress and completion levels of actions.
- Highlight issues and recommend further investigations or necessary adjustments.
- Document successes by showcasing evidence-based outcomes, building trust, and refining future interventions.
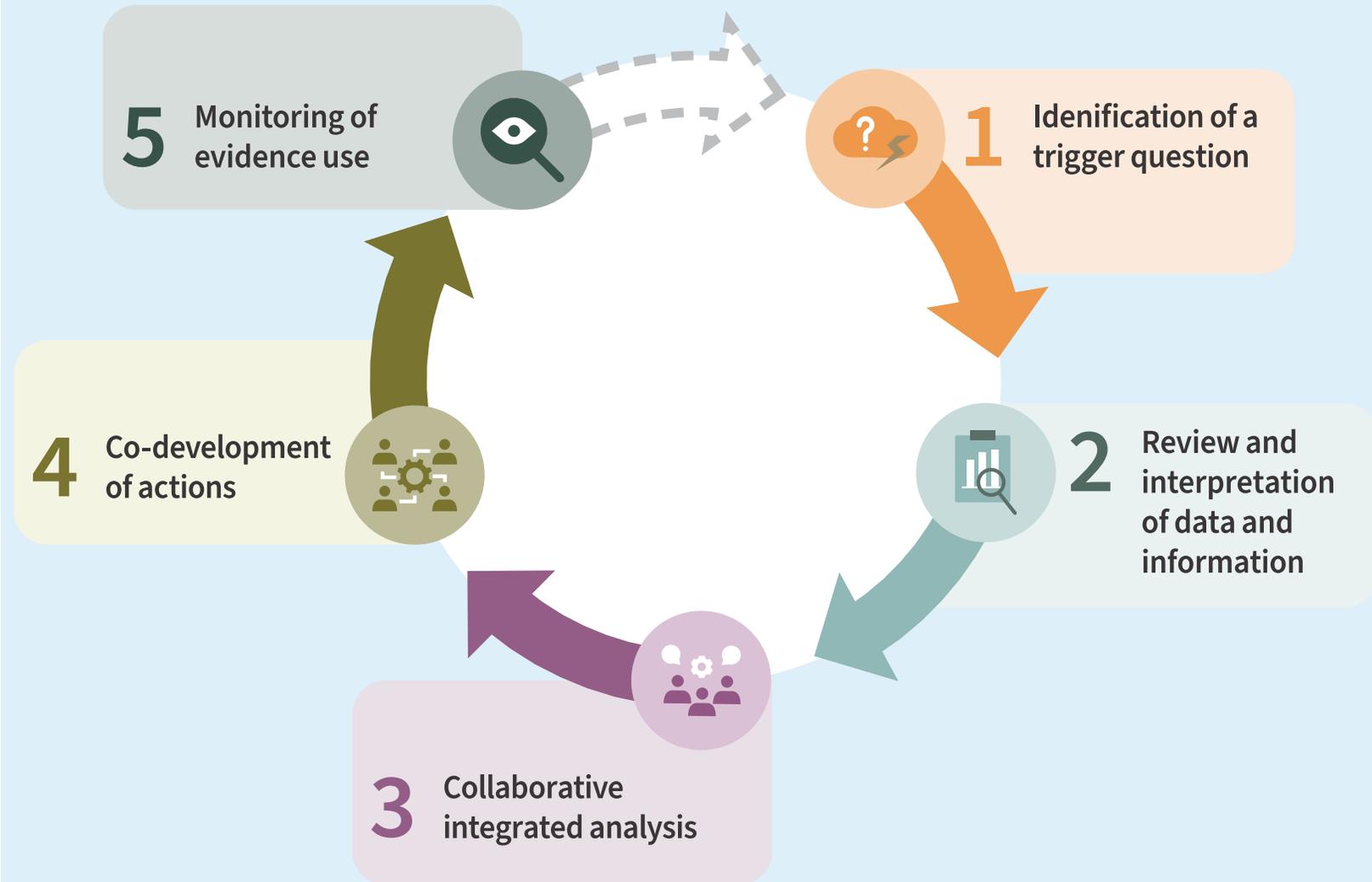
How was IOA developed ?

Origin

- Emerged during the 2018-2020 Ebola outbreak in the Democratic Republic of Congo (DRC).

- Early in the outbreak, a team of data scientists and epidemiologists formed an "Epi Cell" to analyze outbreak data for response efforts.

- The existing Social science analytics cell (CASS) investigated thematic and local challenges to the response.

- Epi Cell and CASS collaborated and produced *ad hoc* needs-based holistic situation analyses that informed response activities. This was called Integrated Outbreak Analytics (IOA).

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IOA INTEGRATED OUTBREAK ANALYTICS

Establishment

- In July 2021, first core team meeting was held with UNICEF, US-CDC, WHO, Epicentre, LSHTM, ITM, and later IFRC, under GOARN "umbrella"

- Following the Ebola outbreak, IOA expanded to address other health crises both in DRC and globally, including

    - COVID-19, cholera, Marburg fever, and malnutrition

    - In Guinea, Ghana, Haiti, and Uganda

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IOA INTEGRATED OUTBREAK ANALYTICS

The IOA Initiative

- To promote the use of the approach in public health emergencies

- Established by a team of experts from organizations involved in public health emergencies

- Supported by a network of organizations within and beyond GOARN, that form the IOA Network
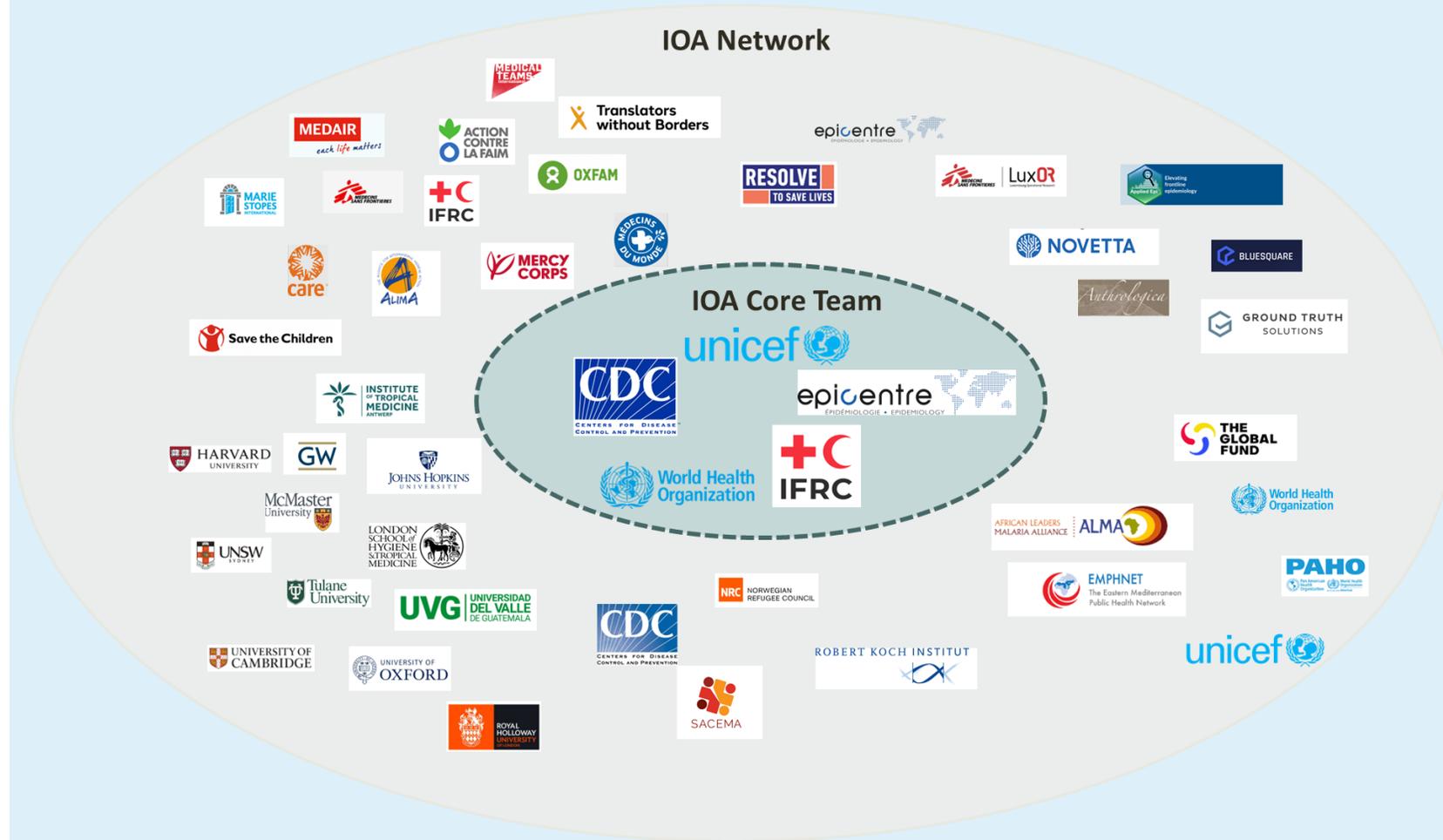
Key outputs

Some years of maturing, responding to outbreaks, promoting within respective organizations and beyond, and re-organizing

2021

- Development of IOA communication material

- Start of YouTube channel

- IOA Network calls (monthly)
  on hold after last one in February 2025

- IOA Field Exchange (quarterly)
  on hold after last one in January 2025

2024

- IOA Trainings, Malawi

- IOA WHO Workshop, Senegal

- IOA Toolkit, including pilots in DRC, Somalia, Sudan

2025

- Publication and release of the IOA toolkit in English and French

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IOA INTEGRATED OUTBREAK ANALYTICS

Next steps

- Support interested Member States with IOA roll out

- Collaborations with national and regional partners and possible inclusion in training curricula

- Publication, communication and dissemination of the toolkit

- Resource mobilization

Thank you !

Visit our website

https://www.integratedoutbreakanalytics.net/

Visit our YouTube channel

@IntegratedOutbreakAnalytics

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