EWEA and the
Common Alerting Protocol

CAP

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1.The Challenge of Alerting

SCENARIO

Consider the instance of an impending flash flood.

Lives are at stake. People need to be warned.

They need to know the **Key Facts** for this emergency.

- **What** is the emergency?
- **Where** is the affected area?
- **How soon** do we need to act?
- **How bad** will it be?
- **How certain** are the experts?
- **What** should we do?

The Challenge of Alerting

Many governments have multiple public alerting systems specific to hazards.

Depending on when the infrastructure was developed, different types of media may have been prioritized. These systems may have been updated as users access information via newer technology, or they may have remained the same.

For example, in a single country, the following could be true:

- **Earthquakes/tsunami** by e-mail, news wire, websites, pagers, phone calls …

- **Weather** by news wire, fax, radio, television, SMS text on cell phones …

- **Fire, Security, Transportation** by television, radio, sirens, police with bullhorns…

Across communities, nations, regions— a "public alerting patchwork"
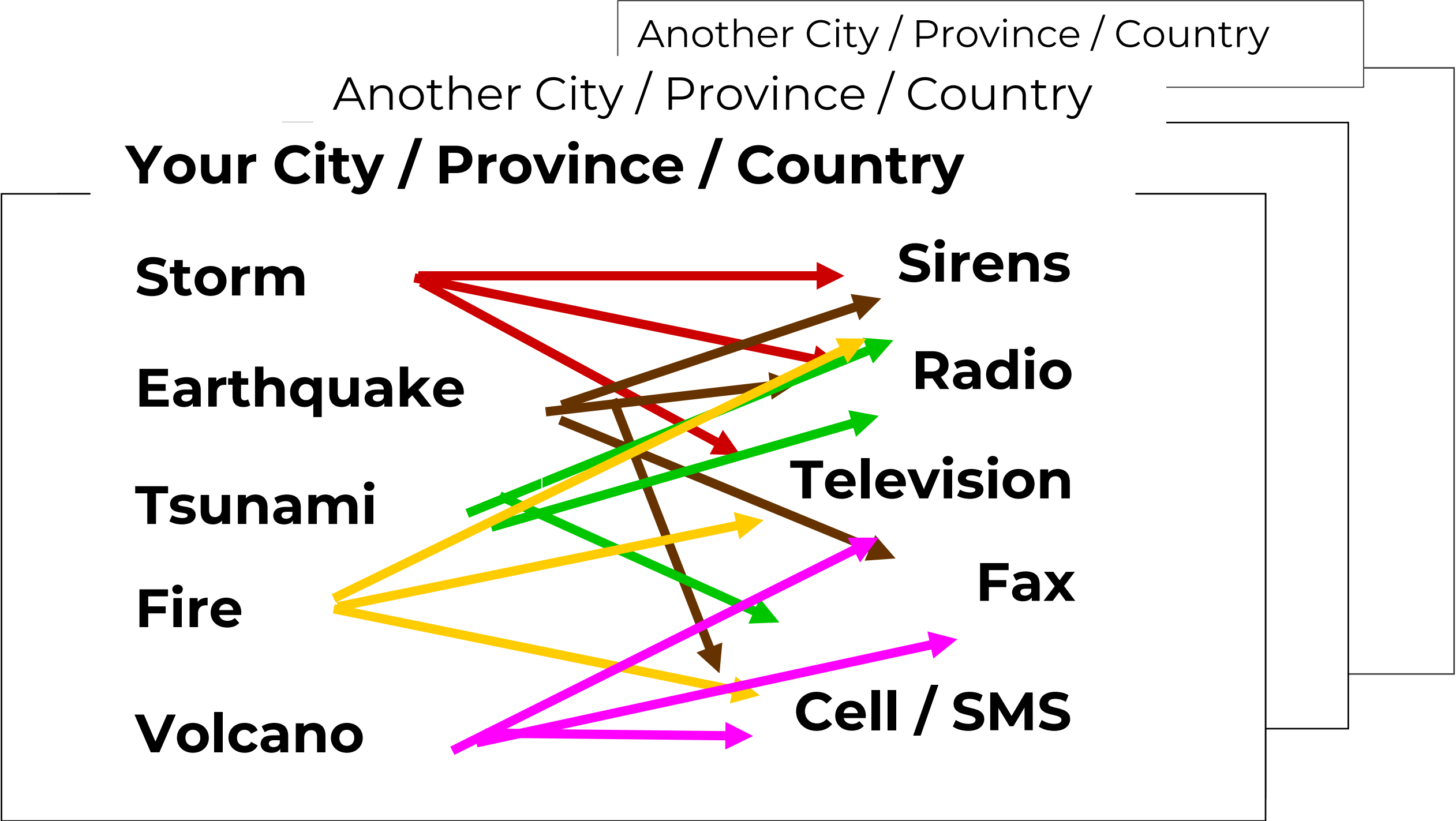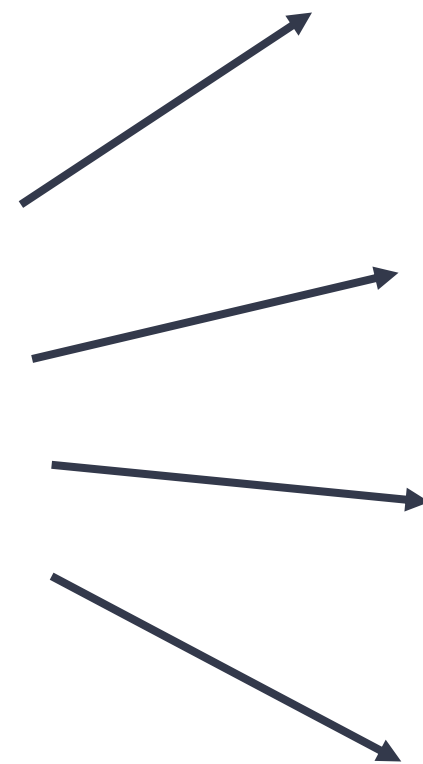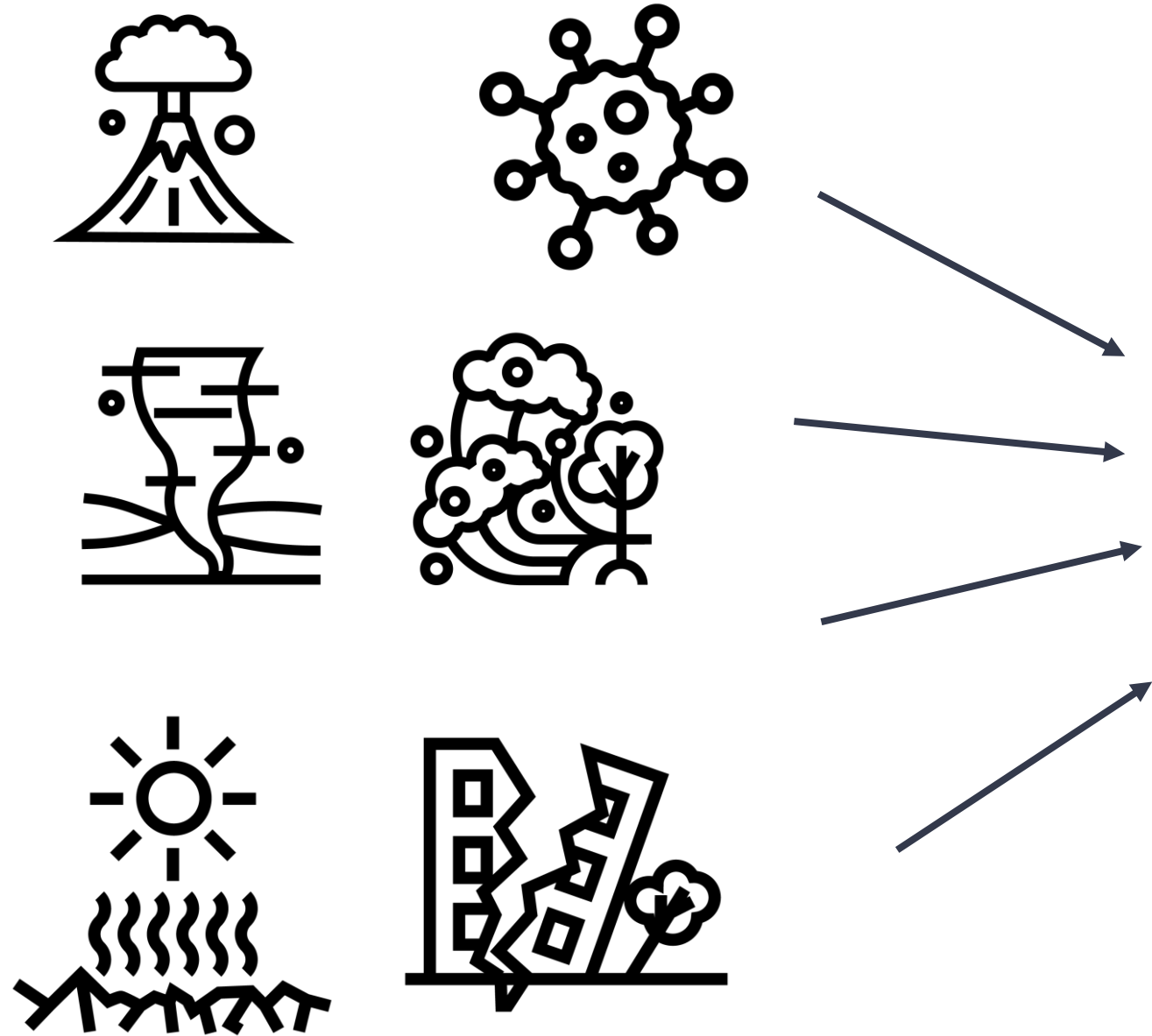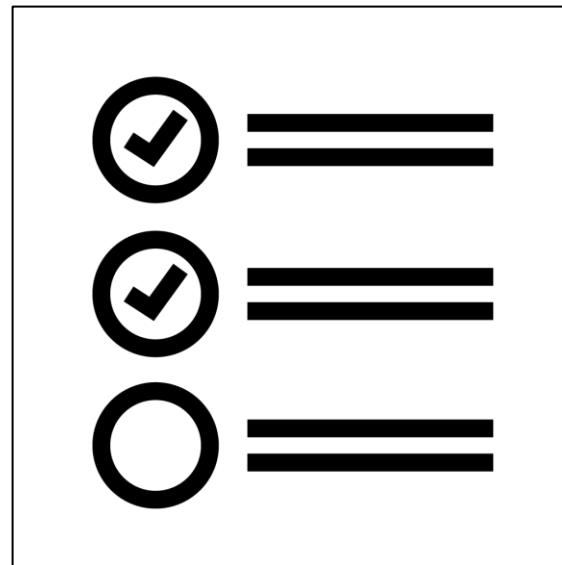
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2. What is CAP?

CAP Carries Key Facts

All-Hazards

All-Media

CAP

An International Standard

The Common Alerting Protocol (CAP) is an **international standard designed for global use.** It is a digital format for exchanging emergency alerts that allows a **consistent alert message** to be disseminated simultaneously over multiple communications pathways.

The standard was developed over several years, has been adopted and promoted by organizations such as International Telecommunication Union (ITU), World Meteorological Organization (WMO), and IFRC.

CAP is actively maintained by a working group of experts under the direction and guidance of OASIS.

Many Actors, Cohesive Messaging

In an emergency, multiple trusted authorities often have separate responsibilities.

- Scientific and technical agencies
- Civic authorities

In a complex, extensive, or evolving emergency, there may be overlapping jurisdictions and multiple authorities involved within each category.

- A disease outbreak in a flooded area
- An earthquake that triggers a tsunami warning
- Heavy rainfall that can cause flash floods and landslides

CAP helps ensure all trusted authorities communicate the Key Facts coherently. It supports harmonized delivery of messaging, and enables redundancy and consistency in alerting.
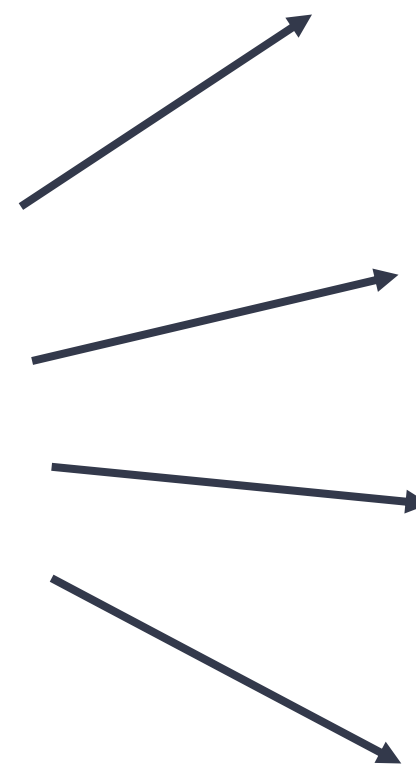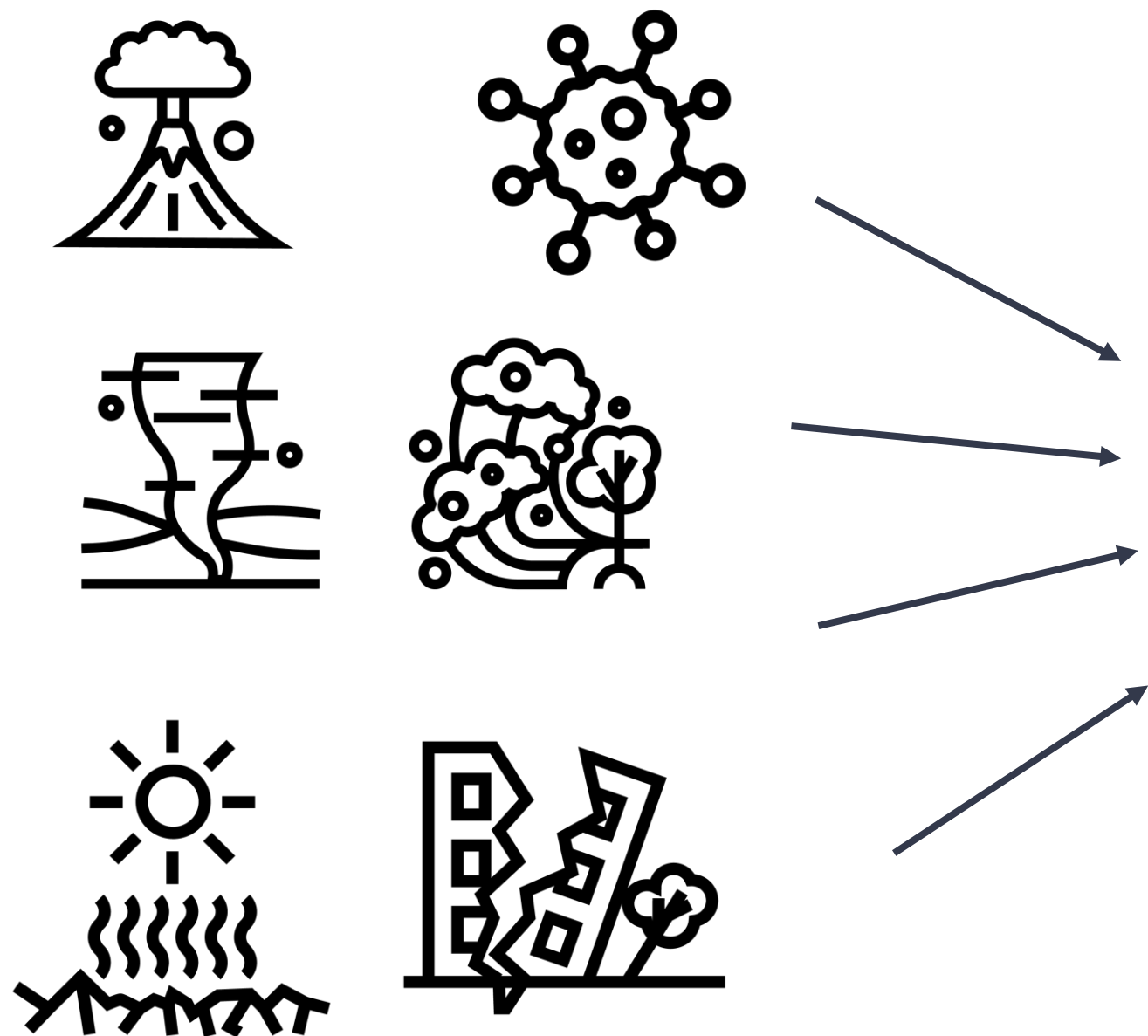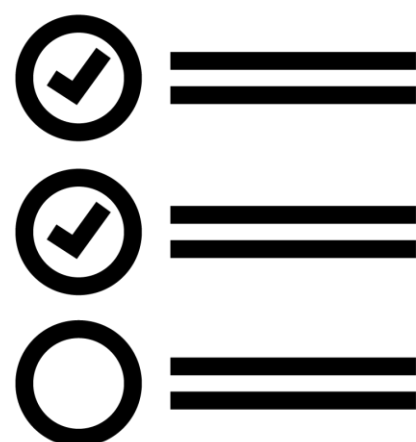
Benefits of CAP

A Standard Format for Alerts

All-Hazards

All-Media

CAP

Benefits of CAP

1. Quicker and easier to issue alerts
2. Shared Situational Awareness
3. Alerting areas are more precise
4. Better inclusion and accessibility
5. Alerting for sudden-onset events

IFRC

Interoperability	Completeness	Simple implementation	Simple XML

Multi-use format	Targeted	Contextualized and actionable	Consistent

<area> Geneva </area>

#WhatNow
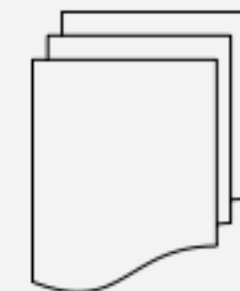
Common Alerting Protocol (CAP) Message Content

Message should get to the key facts

What?
(Description)
(Category*)
(Event)

What to do?
(Instructions)

Where?
(Polygon)
(areaDesc)
(area)

How soon?
(Urgency)

I	E	F	P

How bad?
(Severity)

E	S	M	M

How sure?
(Certainty)

O	L	P	U

And give a message context

Who says?
(SenderID)
(Source)

When?
(Sent Date/Time)

Relations?
(References)
(Incidents)
(Note)

Actionable?
(Status)

A	E	S	T	D

Typology?
(Msg Type)

A	U	C	A	E

Shareable?
(Scope)

P	R	P

* Geophysical, Meteorological, Safety, Security, Rescue, Fire, Health, Environmental, Transport, Infrastructure, CBRNE, Other

Dissemination Mechanisms

- Traditional Media
  - Television
  - Radio
  - Sirens
  - Landline telephones or faxes
- Mobile Phones
  - SMS Alerts
  - WhatsApp Messages
  - Weather and Hazard Apps
  - AccuWeather widget on Android
- Online
  - Google Public Alerts
  - Ad Overlays
  - Social Media (Facebook & Twitter)

Resources on CAP

- GDPC PrepareCenter.org - CAP Implementation Topic
  - https://preparecenter.org/initiative/common-alerting-protocol-implementation
- IFRC Alert Hub Initiative
  - https://preparecenter.org/initiative/the-ifrc-alert-hub/
- OASIS CAP Standard v1.2
  - http://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2-os.html
- World Meteorological Organisation - Register of Alerting Authorities
  - https://alertingauthority.wmo.int/
- International Telecommunication Union - CAP Recommendation
  - https://www.itu.int/rec/T-REC-X.1303

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Thank you!

If you have questions or comments
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