

**Science in Support of Global Policy Decisions**  
**Comparative Roles of Global Verification and On-Site Verification**  
**T5.1 -02**

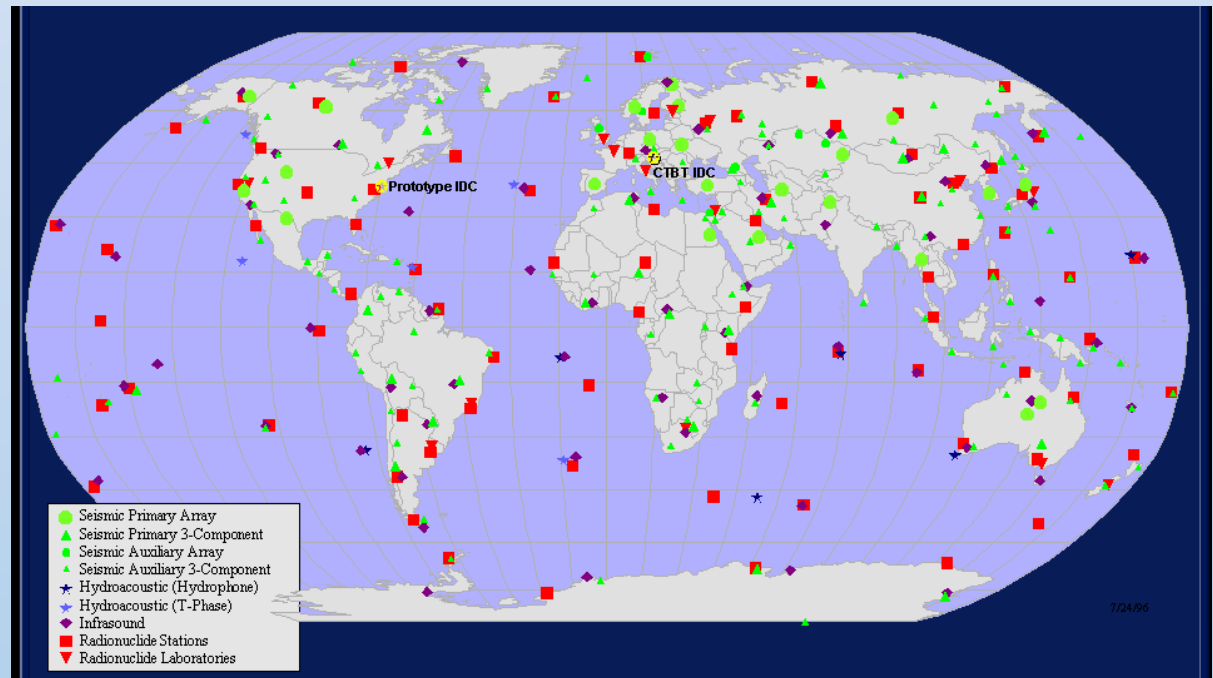
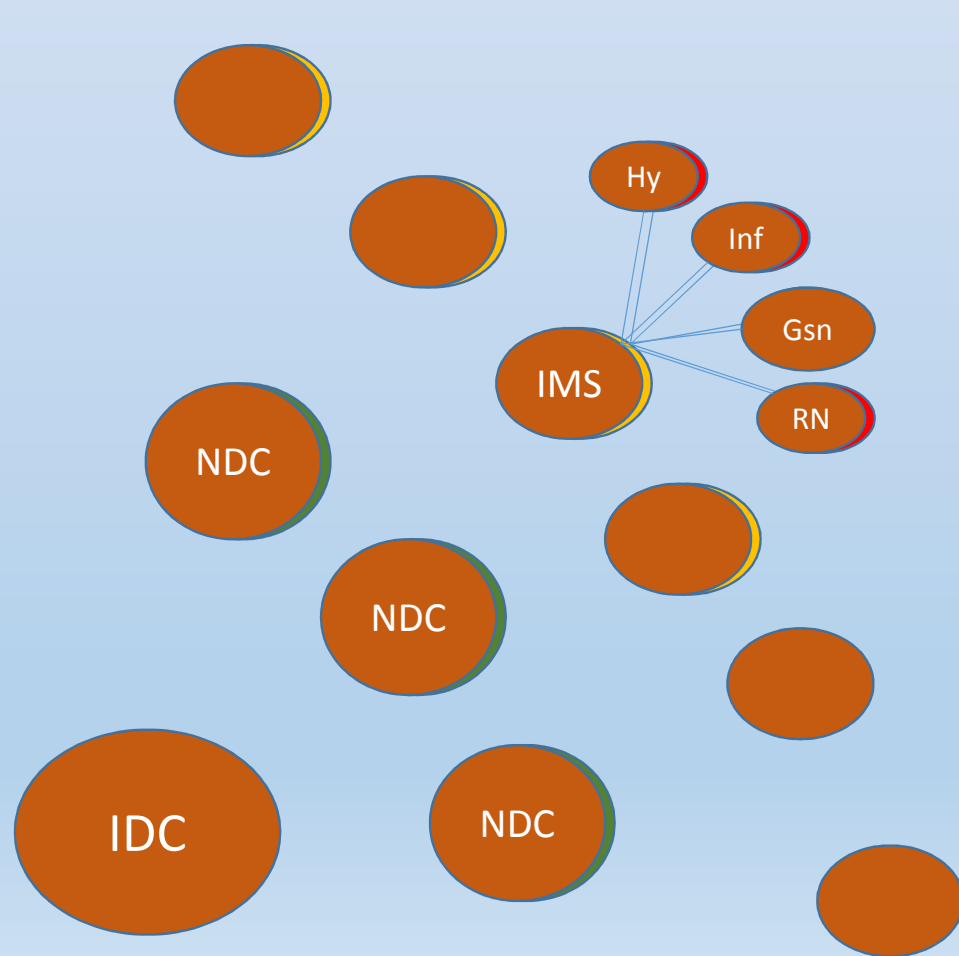
**CTBT Science and Technology Conference**  
**26 – 30 June 2017, Vienna, Austria**

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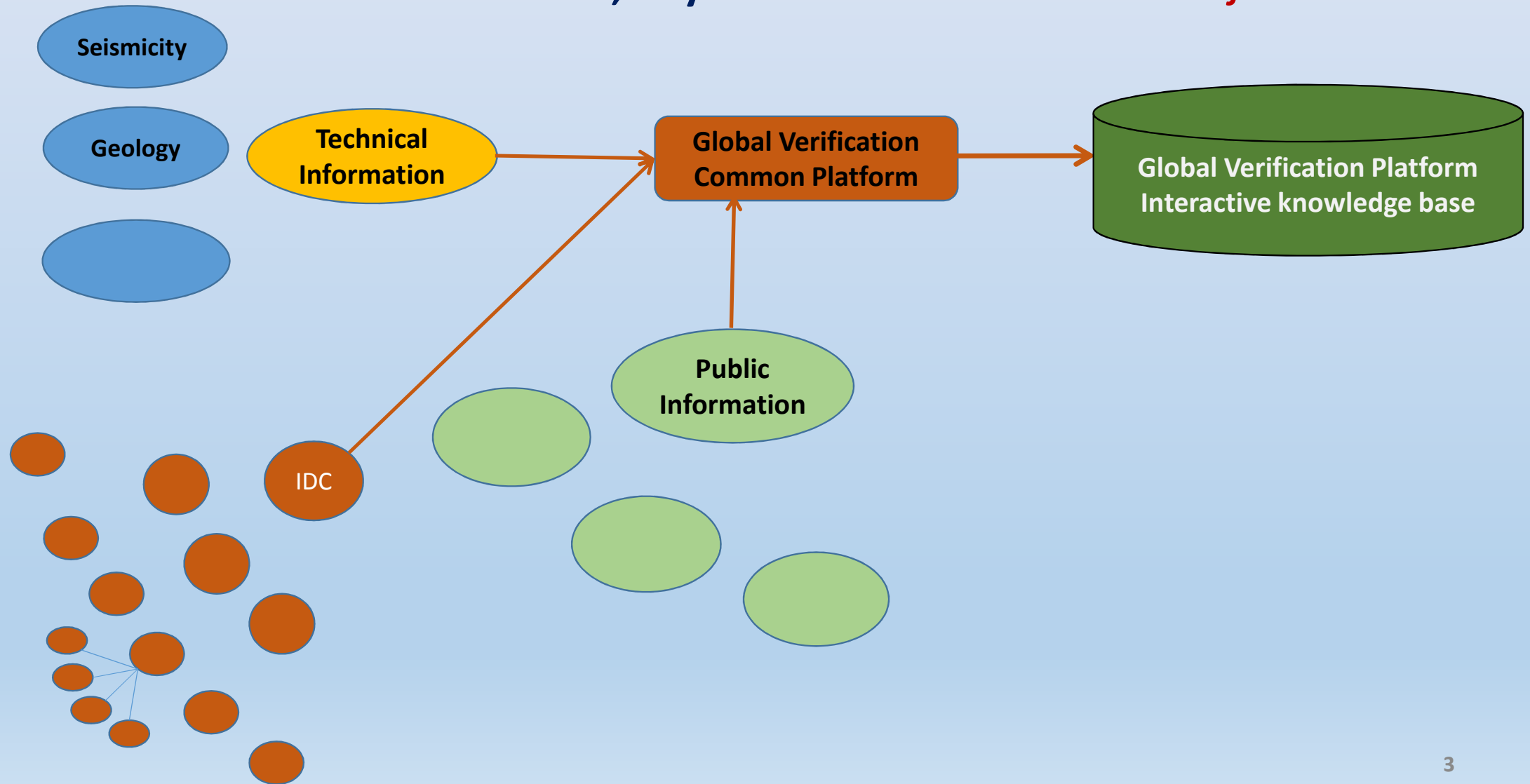
# Global Verification ( *with CTBT Tools* )

International Monitoring System (IMS)  
International Data Centre (IDC)



03-types of waveform data  
RN measurements

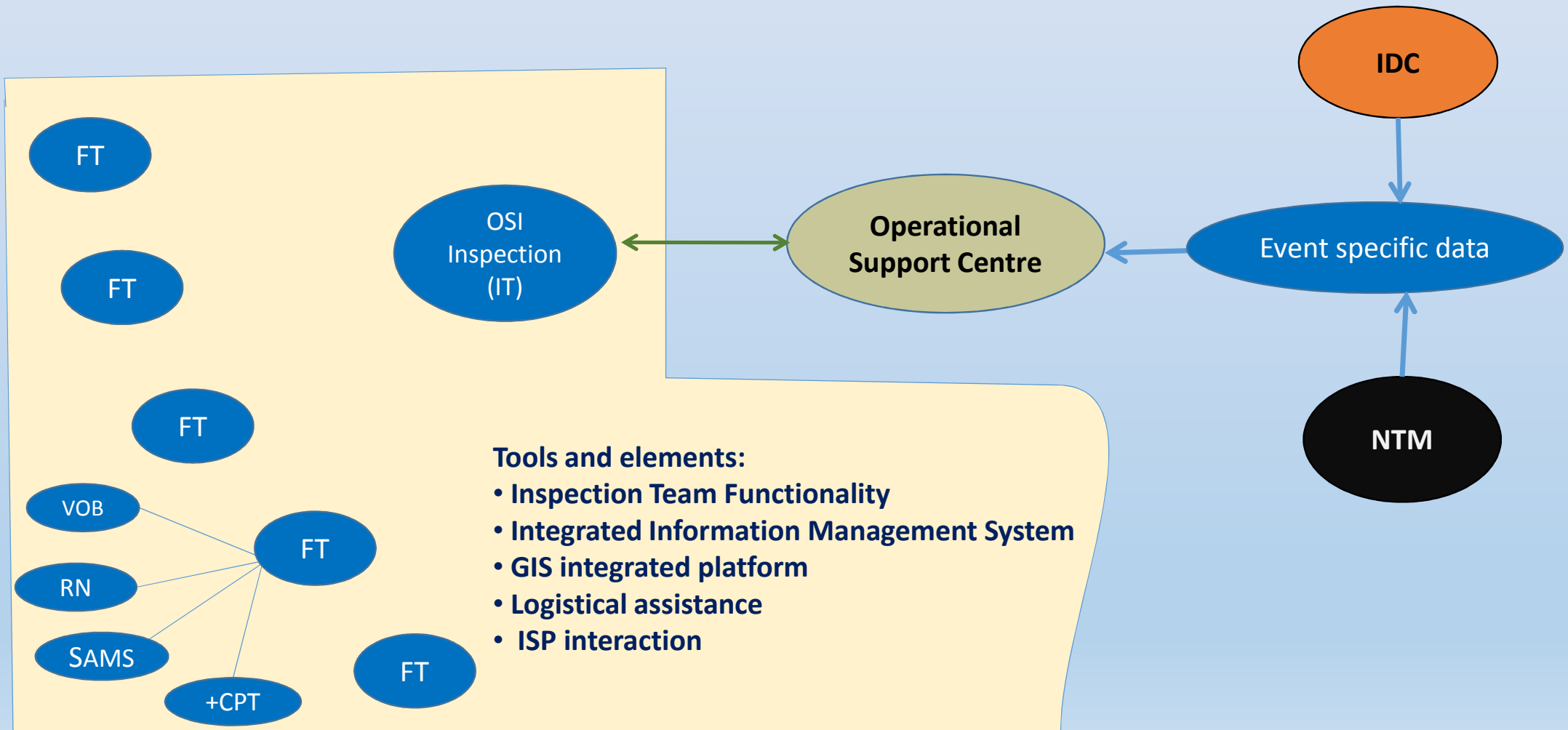
## Global Verification , beyond CTBT tools: *versatile and free access*



## Objectives of the Global Verification:

- F1. Locate and screen events to decide whether an On-Site Inspection is required or not (*once Treaty Entry Into force*)**
- F2. Assist On-Site Inspection providing necessary information and knowledge of the event which OSI is triggered (Kick-start)**
- F3. Outreach to public (scientific community) providing facilities to address “related issues” via verification facilities**

# On-Site Inspection (OSI) Mechanism - *robust and strict*



## **OSI Objective**

**Provide necessary information and data to clarify the nature of the “suspicious event”, which the request is triggered.**

# Global Verification and On-Site Verification, *the contrast*

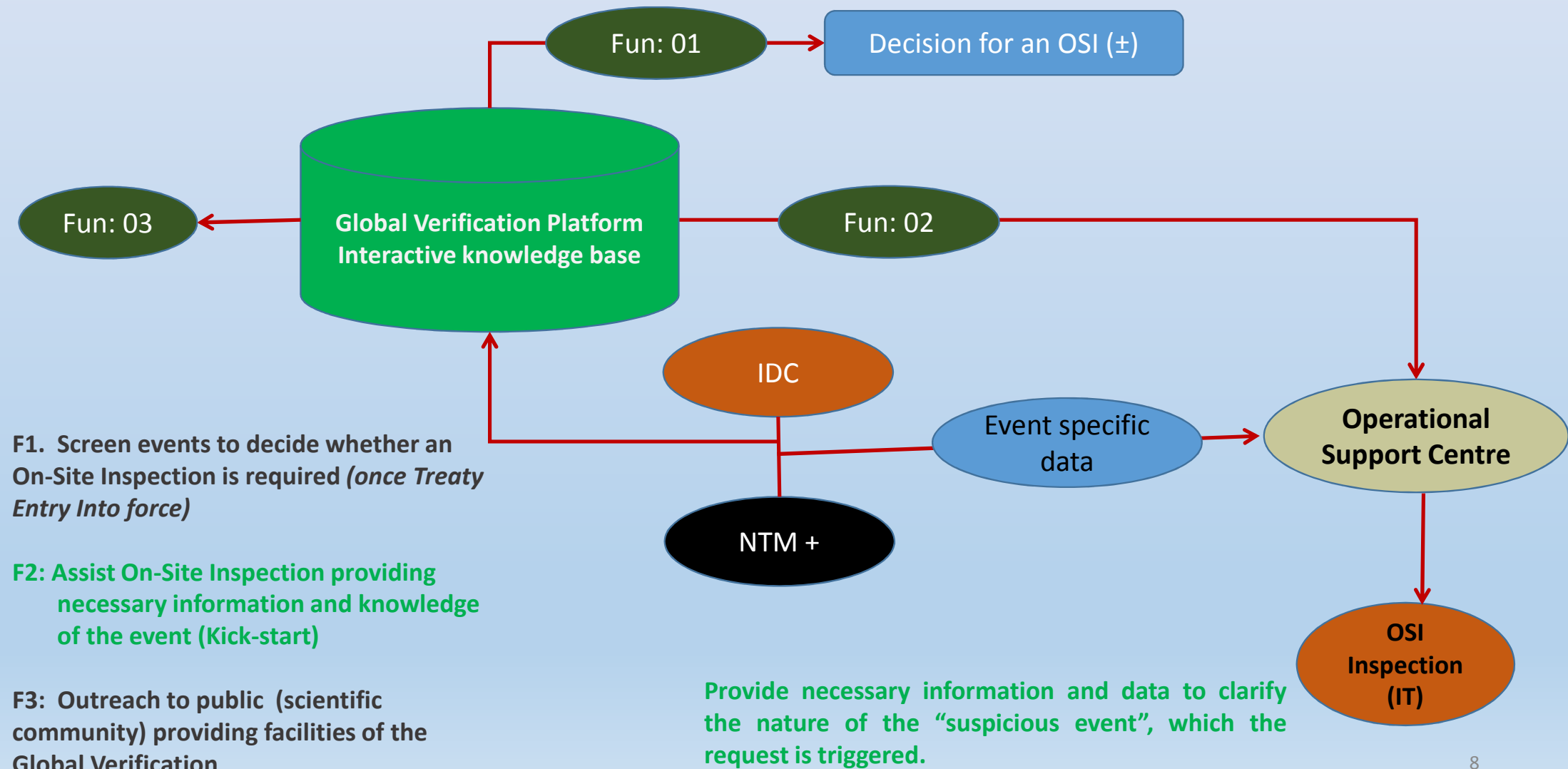
## Global Verification

- Time-independent vast amount of data and knowledge base build-up on information received from different sources.
- User interactive platform where share and exchange of knowledge and information is the essence.
- **Apart of assisting CTBT verification norms, well-prepared to extends the facilities to address related global affairs**

## On-Site Verification

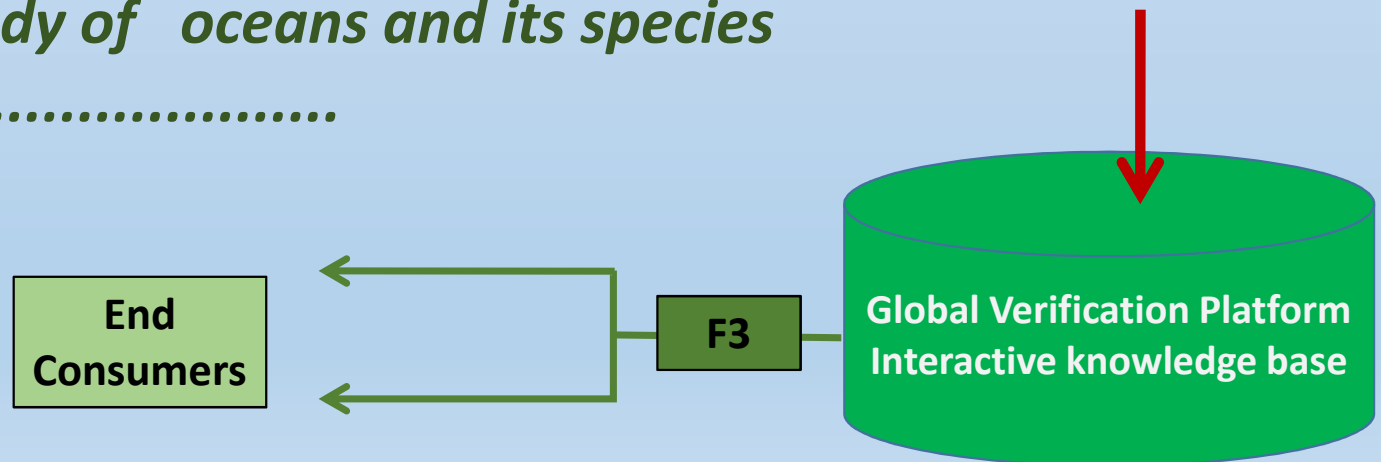
Single and well-defined objective perusing by a set of Inspectors, according to pre-set procedures under strict time-lines.

## Global Verification and OSI Verification, *the Marriage*

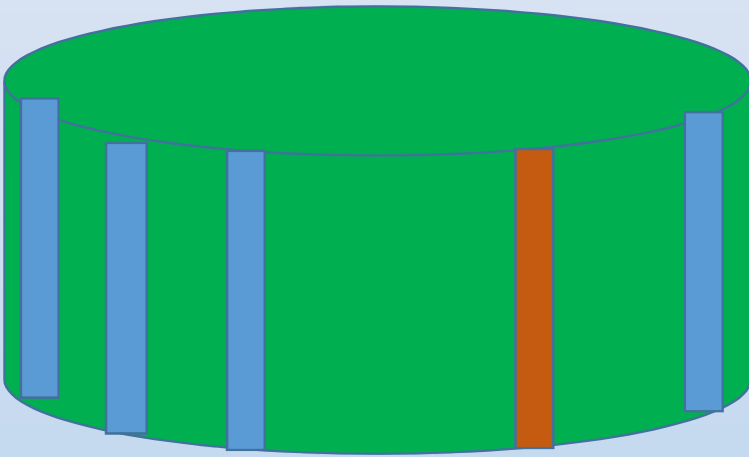


## The idea of outreach and sustainability ? *3<sup>rd</sup> Function*

1. *Outreach to the communities educating them on nuclear disarmament and non-proliferation (obligation)*
2. *Outreach to the wider scientific community to enhance its capabilities on:*
  - (a) *Disaster management*
  - (b) *Study of oceans and its species*
  - (c) *.....*



How much of data is required for the basic functions???



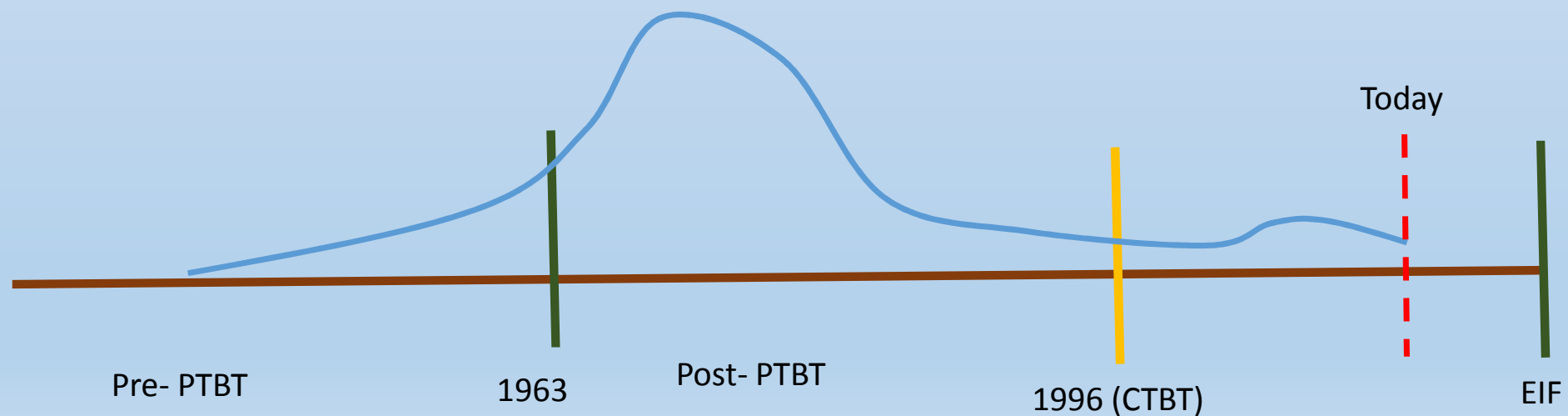
**F1. Locate and Screen events to decide whether an On-Site Inspection is required or not (*once Treaty Entry Into force*)**

**F2. Assist On-Site Inspection providing necessary information and knowledge of the event which OSI is triggered (Kick-start)**

## Once the Treaty Entry Into Force, is the data utilization would be increased in relation to its basic functions?

*F1. Locate and Screen events to decide whether an On-Site Inspection is required*

*F2. Assist On-Site Inspection providing necessary information and knowledge of the event which OSI is triggered*



## Conclusion:

1. Global Verification needs to be developed further, than of the products of IMS /IDC, to enhance its versatility, while not deviating from its primary objectives (F1 and F2).
2. Robust On-Site Inspection mechanism needs to marry with Global Verification via OSC (Operational Support Centre) for an effective OSI Inspection.
3. Outreach of Verification Facilities to the global community needs to be recognized in proper perspectives to build necessary tools.
4. CTBT Entry Into Force make the Global Verification and On-Site Verification a compulsory and legally binding entity (*further*), yet the vast facilities of Global Verification will be heavily underused, unless /until effective outreach mechanism is formulated



**Unpredicted extreme weather conditions were the cause for these landslides that killed over 200 people, 28<sup>th</sup> May 2017, Sri Lanka.**

**Rainfall over 200mm within a span of 03hrs**





Global Verification Platform  
Interactive knowledge base

