

20th

Insurance &
Reinsurance
Meeting

19-21 September 2018
Costa Navarino



Natural Catastrophe Schemes - Global Footprint

Gerry Tighe, Head of Treaty

MATRIX Insurance & Reinsurance Brokers SA

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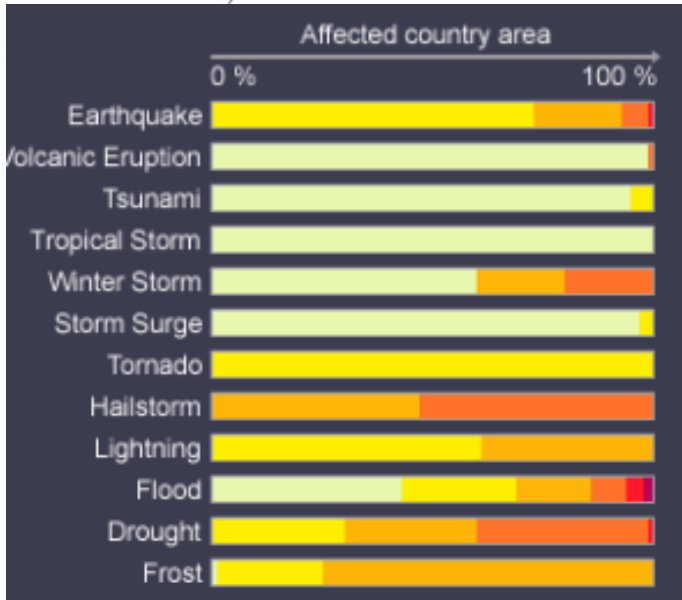
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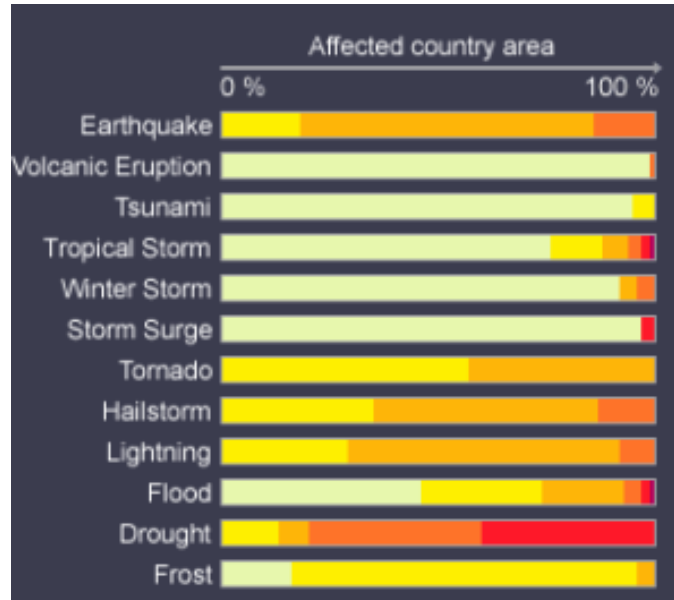
All Countries are Exposed by Varying Degree to Risk

Examples of Differing Exposures in 4 OECD Countries

FRANCE



AUSTRALIA

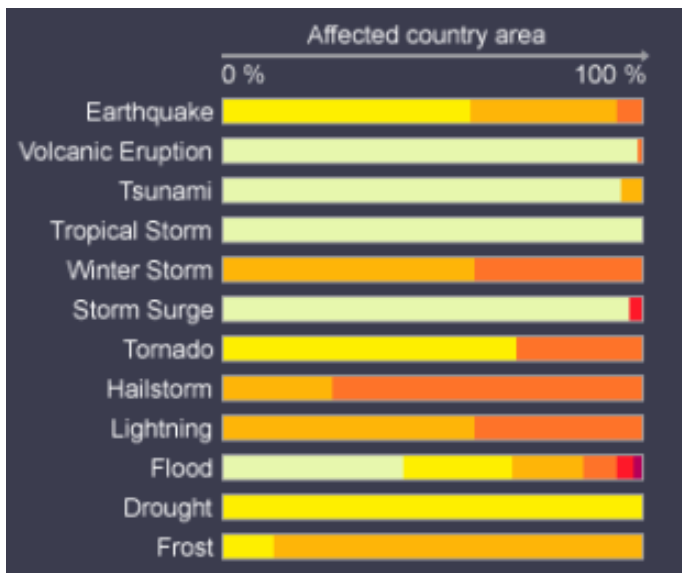


GREECE

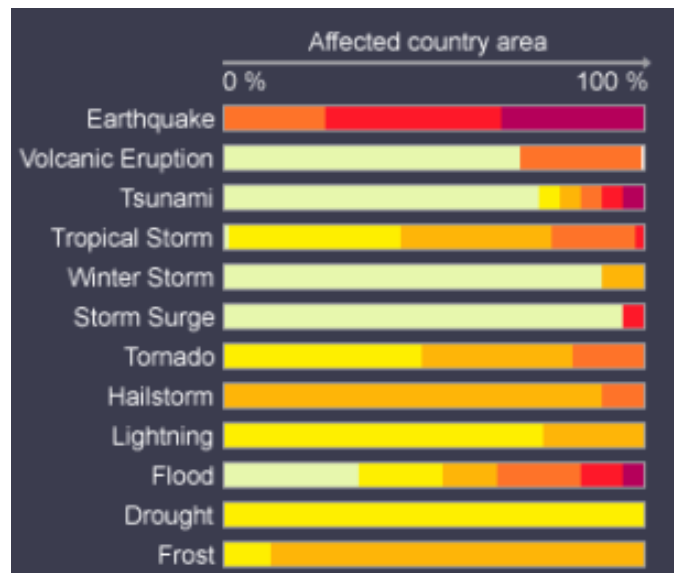


GREECE
is the most
seismically active
country in Europe

SPAIN



JAPAN



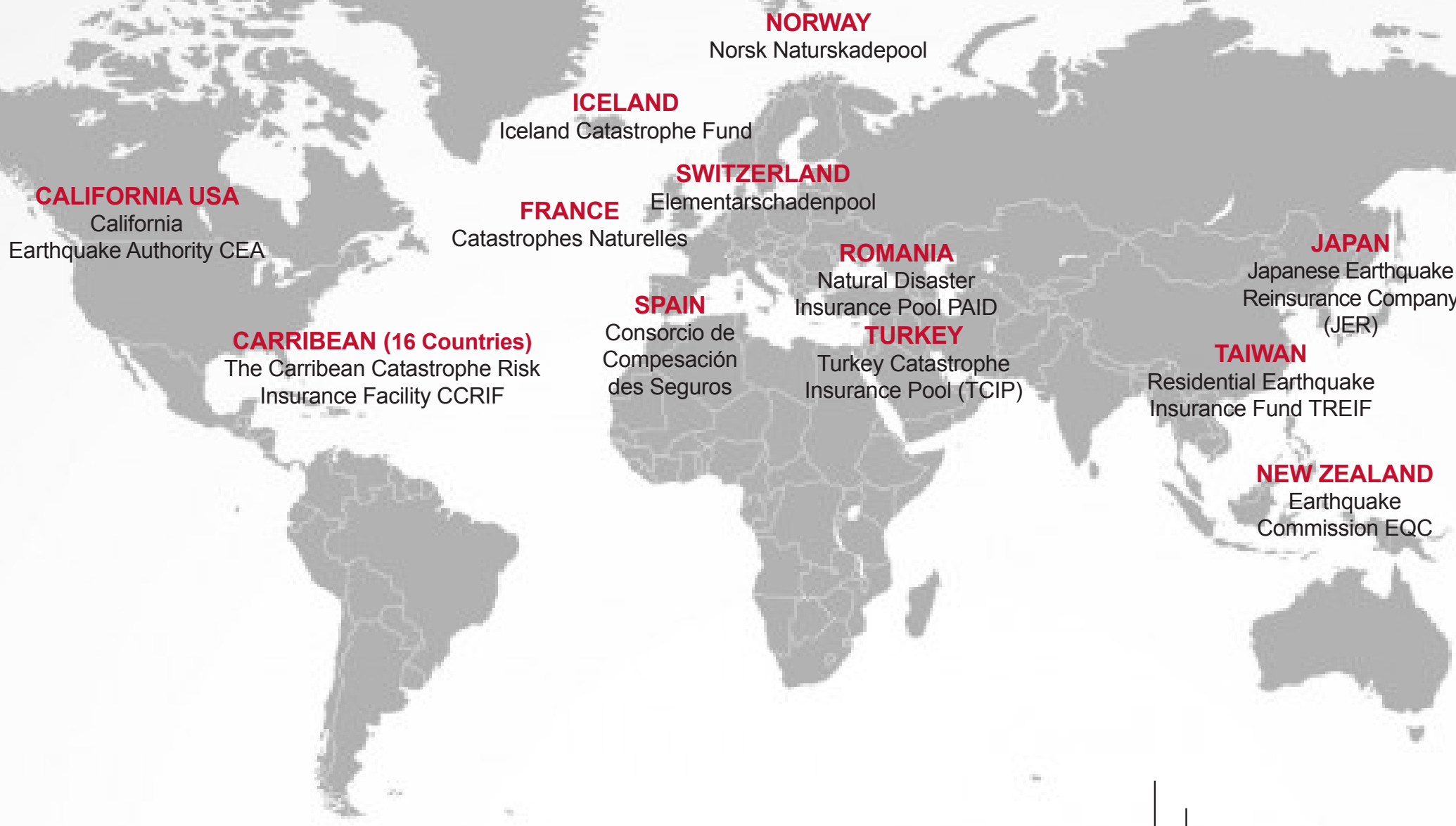
It started in Switzerland...



- The assumption of natural hazard risk by National Governments is a relatively new phenomenon given that no such scheme existed prior to the 1930's when the Swiss Elemental Pool was established
- The type and extent of government involvement is a reflection of fundamental political principles that may vary over time and from country to country
- Lessons can be learned from existing schemes which prove helpful as a guideline for countries yet to begin to address disaster mitigation

Governments Increasingly Looking to Privatise Risk

Examples of Significant Natural Catastrophe Schemes



CALIFORNIA USA
California
Earthquake Authority CEA

CARRIBEAN (16 Countries)
The Carribean Catastrophe Risk
Insurance Facility CCRIF

NORWAY
Norsk Naturskadepool

ICELAND
Iceland Catastrophe Fund

FRANCE
Catastrophes Naturelles

SWITZERLAND
Elementarschadenpool

SPAIN
Consortio de
Compesación
des Seguros

ROMANIA
Natural Disaster
Insurance Pool PAID


TURKEY
Turkey Catastrophe
Insurance Pool (TCIP)

JAPAN
Japanese Earthquake
Reinsurance Company
(JER)

TAIWAN
Residential Earthquake
Insurance Fund TREIF

NEW ZEALAND
Earthquake
Commission EQC

How can we Compare Schemes?



All schemes are complex,
but if we drill down to
the following criteria, we can
gain a high level overview

NAT CAT SCHEMES

Key Criteria

- Date of establishment
- Primary/Reinsurance
- Perils covered
- Rates
- Reinsurance
- Government funding
- Fund build up
- Primary coverage

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NO STATE GUARANTEE			
LIMITED STATE GUARANTEE			
UNLIMITED STATE GUARANTEE			
	COMPULSORY INSURANCE (Consumers)	COMPULSORY INSURANCE (Insurers)	VOLUNTARY PARTICIPATION (Insurers & Consumers)



ICELAND

Iceland Catastrophe Fund

- Est 1975
- Primary Insurance
- Covers all natural perils excluding windstorm
- Fixed rates
- XOL Reinsurance protection
- No government funding
- Fund build up 
- Residential property



ICELAND

NO STATE
GUARANTEE



LIMITED
STATE
GUARANTEE

UNLIMITED
STATE
GUARANTEE

COMPULSORY
INSURANCE
(Consumers)

COMPULSORY
INSURANCE
(Insurers)

VOLUNTARY
PARTICIPATION
(Insurers &
Consumers)

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FRANCE

Catastrophes Naturelles

- Est 1982
- Reinsurance
- All perils (ex windstorm in metropolitan areas)
- Fixed percentage of original premium
- No reinsurance protection
- State guarantee of reinsurer CCR
- Fund build up ❌
- Residential, Commercial & Industrial property



FRANCE

NO STATE GUARANTEE	●		
LIMITED STATE GUARANTEE			
UNLIMITED STATE GUARANTEE			●
	COMPULSORY INSURANCE (Consumers)	COMPULSORY INSURANCE (Insurers)	VOLUNTARY PARTICIPATION (Insurers & Consumers)

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SPAIN

Consorcio de Compesación des Seguros

- Est 1954
- Primary insurance
- Covers all perils
- Fixed rates
- No reinsurance protection
- No government funding
- Fund build up ✘
- Residential, Commercial & Industrial property



SPAIN

NO STATE GUARANTEE	●		
LIMITED STATE GUARANTEE			
UNLIMITED STATE GUARANTEE		●	●
	COMPULSORY INSURANCE (Consumers)	COMPULSORY INSURANCE (Insurers)	VOLUNTARY PARTICIPATION (Insurers & Consumers)

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CALIFORNIA - USA

California Earthquake Authority CEA

- Est 1996
- Primary insurance
- Residential earthquake
- Tariff rates based upon age, location, construction
- XOL and cat bond reinsurance
- No government funding
- Fund build up ✓
- Residential property



CALIFORNIA

NO STATE
GUARANTEE



LIMITED
STATE
GUARANTEE

UNLIMITED
STATE
GUARANTEE

COMPULSORY
INSURANCE
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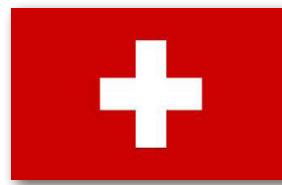




SWITZERLAND

Elementarschadenpool

- Est 1939
- Primary Insurance
- Defined “elemental perils”
- Fixed rates
- Stop loss reinsurance
- No government funding
- Fund build up ❌
- Residential, Commercial & Industrial property



SWITZERLAND

NO STATE GUARANTEE	●		● ●
LIMITED STATE GUARANTEE			
UNLIMITED STATE GUARANTEE		●	●
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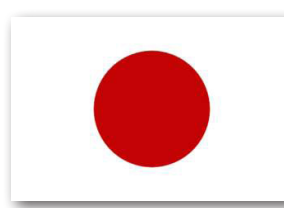




JAPAN

Japanese Earthquake Reinsurance Company (JER)

- Est 1966
- Reinsurance
- Residential earthquake
- Tariff based upon age, location, construction
- XOL retro reinsurance, Government the major reinsurer
- No government funding
- Fund build up ❌
- Residential property



JAPAN

NO STATE GUARANTEE	●		● ●
LIMITED STATE GUARANTEE		●	
UNLIMITED STATE GUARANTEE		●	●
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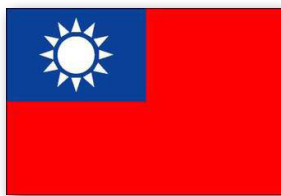




TAIWAN

Taiwan Residential Earthquake Insurance Pool (TREIP)

- Est 2002
- Primary Insurance
- Residential earthquake
- Flat premium per policy
- XOL and structured reinsurance
- Government funding
- Fund build up ✓
- Residential property



TAIWAN

NO STATE GUARANTEE	●		● ●
LIMITED STATE GUARANTEE		● ●	
UNLIMITED STATE GUARANTEE		●	●
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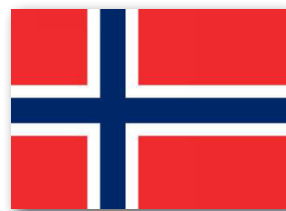




NORWAY

Norsk Naturskadepool

- Est 1980
- Reinsurance
- All natural perils
- Fixed rate on SI
- XOL reinsurance
- No government funding
- Fund build up ✓
- Residential, Commercial & Industrial property including other onshore marine classes etc.



NORWAY

NO STATE GUARANTEE	●	●	● ●
LIMITED STATE GUARANTEE		● ●	
UNLIMITED STATE GUARANTEE		●	●
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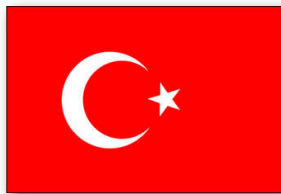




TURKEY

Turkey Catastrophe Insurance Pool (TCIP)

- Est 2000
- Primary insurance reinsured to pool
- Residential earthquake
- Tariff rates by region and construction
- XOL and structured reinsurance
- No government funding
- Fund build up ✓
- Residential property



TURKEY

NO STATE GUARANTEE	●	●	● ●
LIMITED STATE GUARANTEE		● ●	
UNLIMITED STATE GUARANTEE		●	●
	COMPULSORY INSURANCE (Consumers)	COMPULSORY INSURANCE (Insurers)	VOLUNTARY PARTICIPATION (Insurers & Consumers)

Note: A red dot is located in the 'LIMITED STATE GUARANTEE' row, between the 'COMPULSORY INSURANCE (Consumers)' and 'COMPULSORY INSURANCE (Insurers)' columns, with a red line connecting it to a red dot in the 'COMPULSORY INSURANCE (Insurers)' column.

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ROMANIA

Natural Disaster Insurance Pool PAID

- Est 2009
- Primary insurance reinsured to pool
- Residential Earthquake, Flood, Landslide
- Fixed flat premiums, 2 dwelling types
- XOL reinsurance
- No government funding
- Fund build up ✓
- Residential property



ROMANIA

NO STATE GUARANTEE	●	●	● ●
LIMITED STATE GUARANTEE	● — ●	● ●	
UNLIMITED STATE GUARANTEE		●	●
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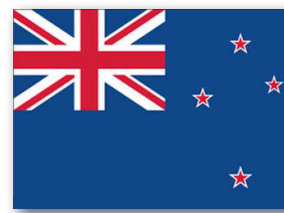




NEW ZEALAND

Earthquake Commission EQC

- Est 1944
- Primary Insurance
- Residential earthquake, volcano, tsunami
- Fixed rate with cap
- XOL reinsurance
- No funding, but owned by the state
- Fund build up ✓
- Residential property



NEW ZEALAND

NO STATE GUARANTEE	●	●	● ●
LIMITED STATE GUARANTEE	● — ●	● ●	
UNLIMITED STATE GUARANTEE		● ●	●
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CARRIBEAN

CARRIBEAN (16 countries)

The Carribean Catastrophe Risk Insurance Facility CCRIF

- Est 2007
- Insureds are the governments of pool members
- Earthquake, wind, excess rainfall
- Rate = Average annualised loss multiplied formula
- Parametric and structured reinsurance
- Funding from EU, Canada & USA
- Fund build up ❌
- Covers government exposure

NO STATE GUARANTEE

LIMITED STATE GUARANTEE

UNLIMITED STATE GUARANTEE

	●	● ●	● ●
	●	● ●	● ●
	●	● ●	●

COMPULSORY INSURANCE (Consumers)

COMPULSORY INSURANCE (Insurers)

VOLUNTARY PARTICIPATION (Insurers & Consumers)

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Other National Catastrophe Schemes

- UK - Flood Re
- USA - National Flood Program NFIP
- USA - Florida Hurricane Catastrophe Fund FHCF
- Algeria - Algerian Catastrophe Insurance Pool
- Indonesia - MAIPARK



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**There is no such thing as a best catastrophe insurance program
given that the alternatives are based
on existing conditions and intended objectives**

- **Cover should be:**
 - **Affordable**
 - **Relevant**
 - **Available**

National Catastrophe Schemes Represent a Win-Win Situation for All



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Thank You!

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