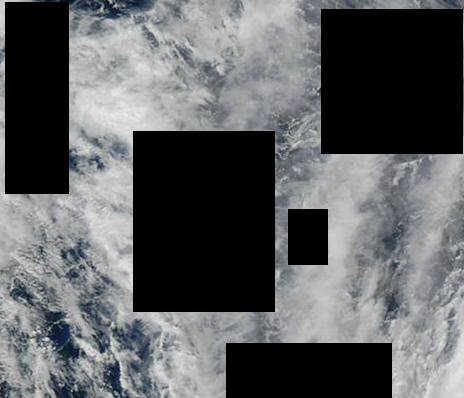


Wake Up Call: Lessons Learned from Hurricanes Irma & Maria

Dharma Rovayo & Anthony Phillips

ICMIF MORO, April 2018

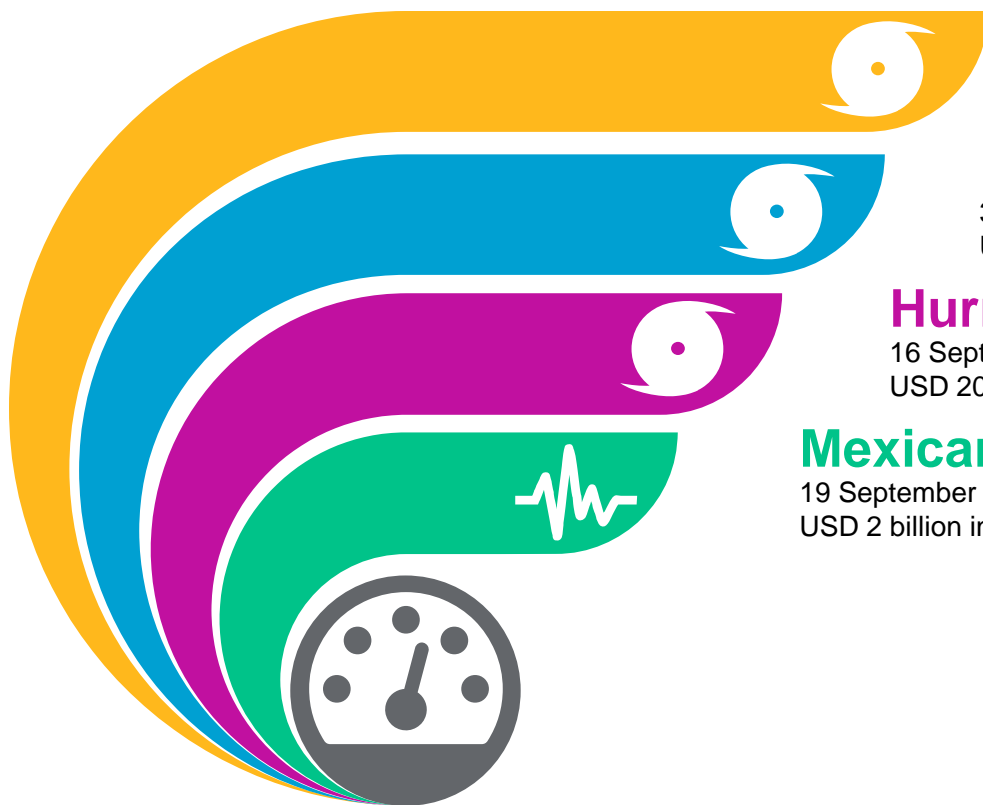


Latin America & Caribbean Treaty Reinsurance Market



US, Latin America & Caribbean Market Events

US & Caribbean combined loss from HIM USD 75 billion



Hurricane Harvey

17 August 2017
USD 16 billion insured loss*

Hurricane Irma

30 August 2017
USD 18 billion insured loss*

Hurricane Maria

16 September 2017
USD 20 billion insured loss*

Mexican Earthquakes

19 September 2017
USD 2 billion insured loss

* Estimates for USA, Virgin Islands and Puerto Rico

Puerto Rico Events

Hurricane Irma, 6-12 September 2017

- 2nd strongest storm that has ever existed in the Atlantic in terms of both max wind speed and Accumulated Cyclone Energy
- Formed on 30 August and became a Cat 5 storm on 5 September
- Remained a Cat 5 for 3 consecutive days – the longest in satellite history
- Irma passed through the north of Puerto Rico causing extensive damage and flash flooding

Hurricane Maria, 16-30 September 2017

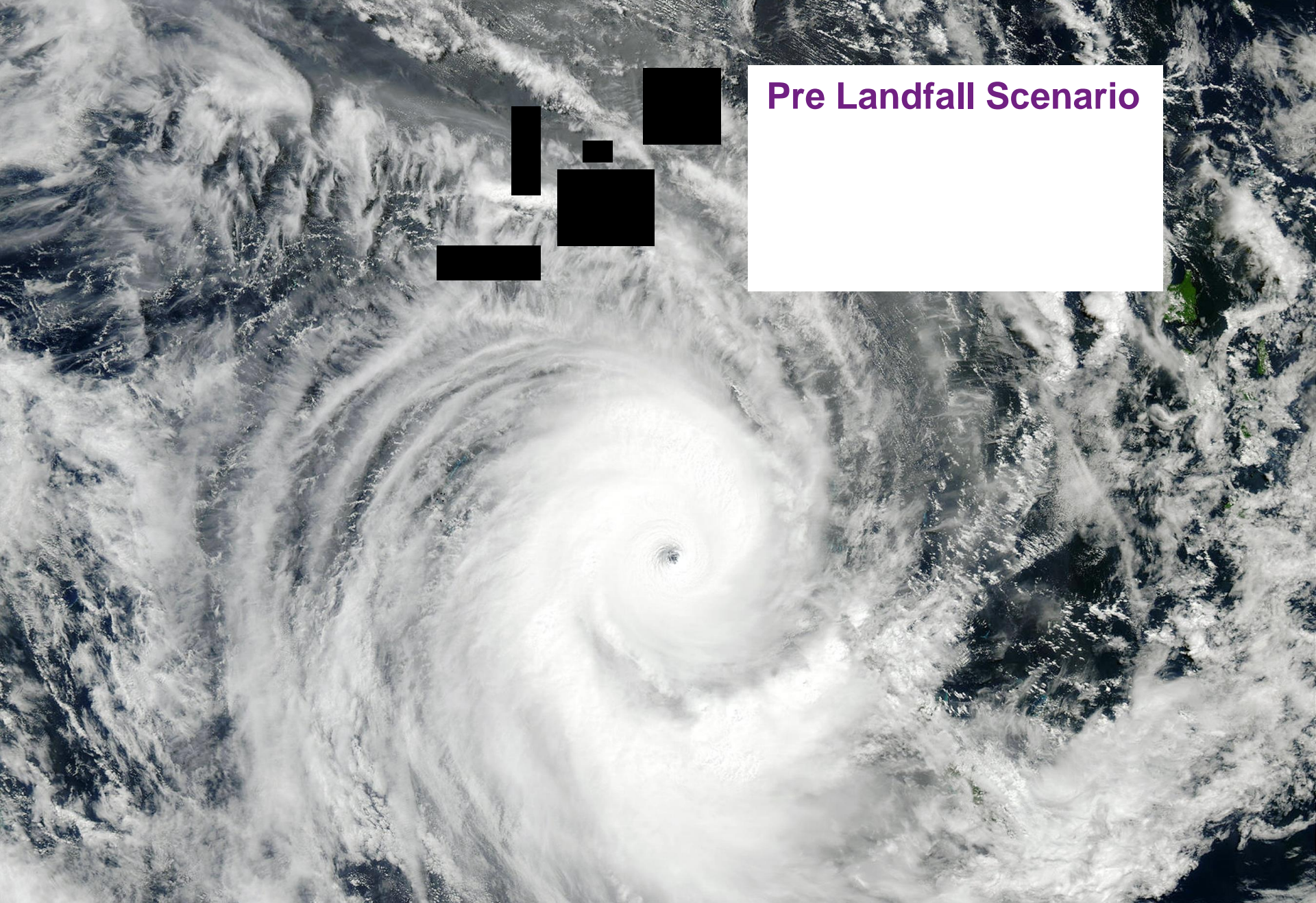
- Maria was the deadliest hurricane of the 2017 Atlantic hurricane season
- Maria made landfall in Puerto Rico as a Cat 4 hurricane. In Catano, 80% of buildings were damaged (RMS). Many hospitals and San Juan airport were severely damaged. Additionally, over 80% of power distribution network was damaged causing power outages for 3-6 months (RMS).
- Extreme rainfall in central Puerto Rico caused extreme flash flooding and widespread flood inundation



Hurricane Irma path as on September 10, 2016 (source: NOAA)

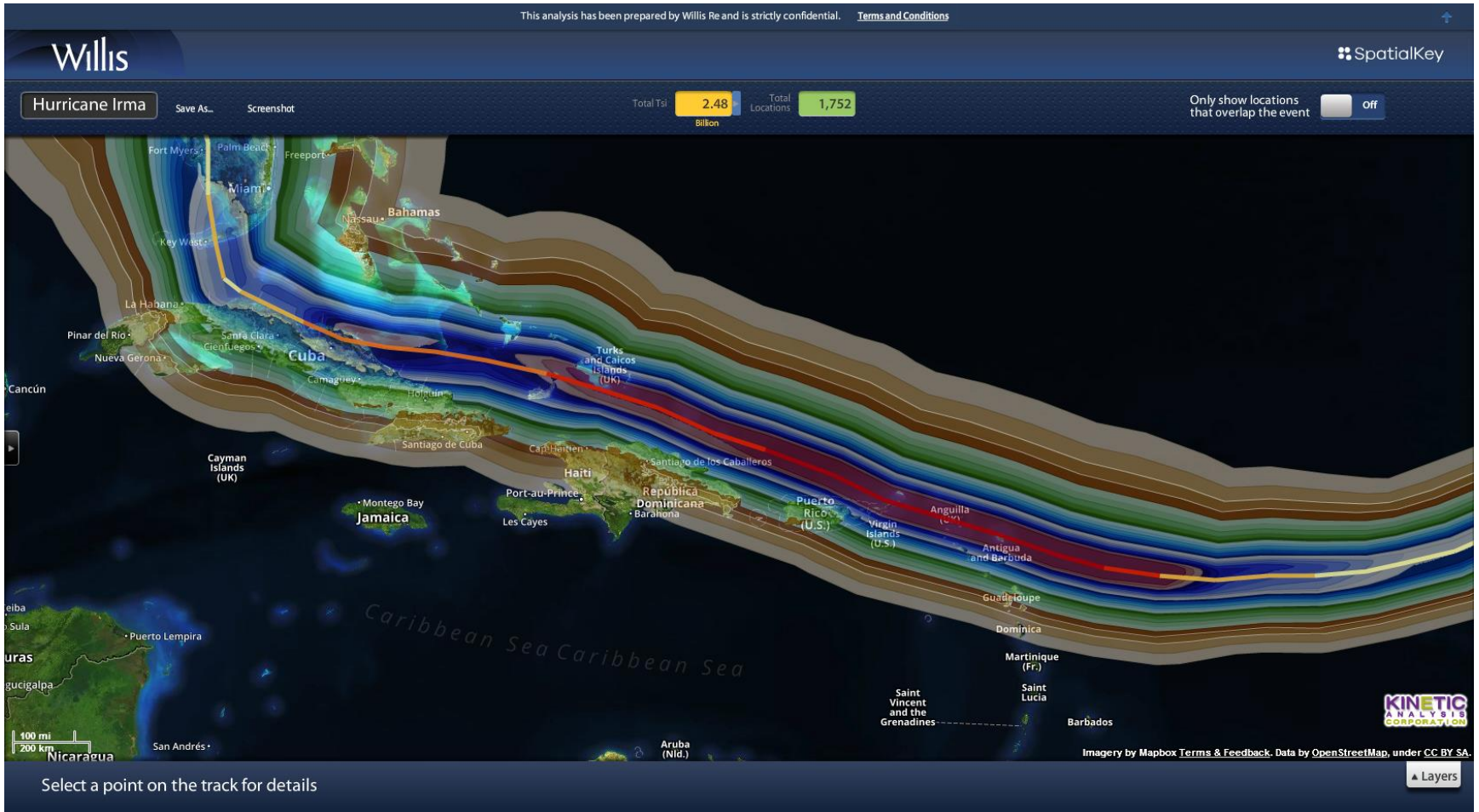


Track of Hurricane Maria at 11am on September 18 (U.S. time) (source: NOAA)

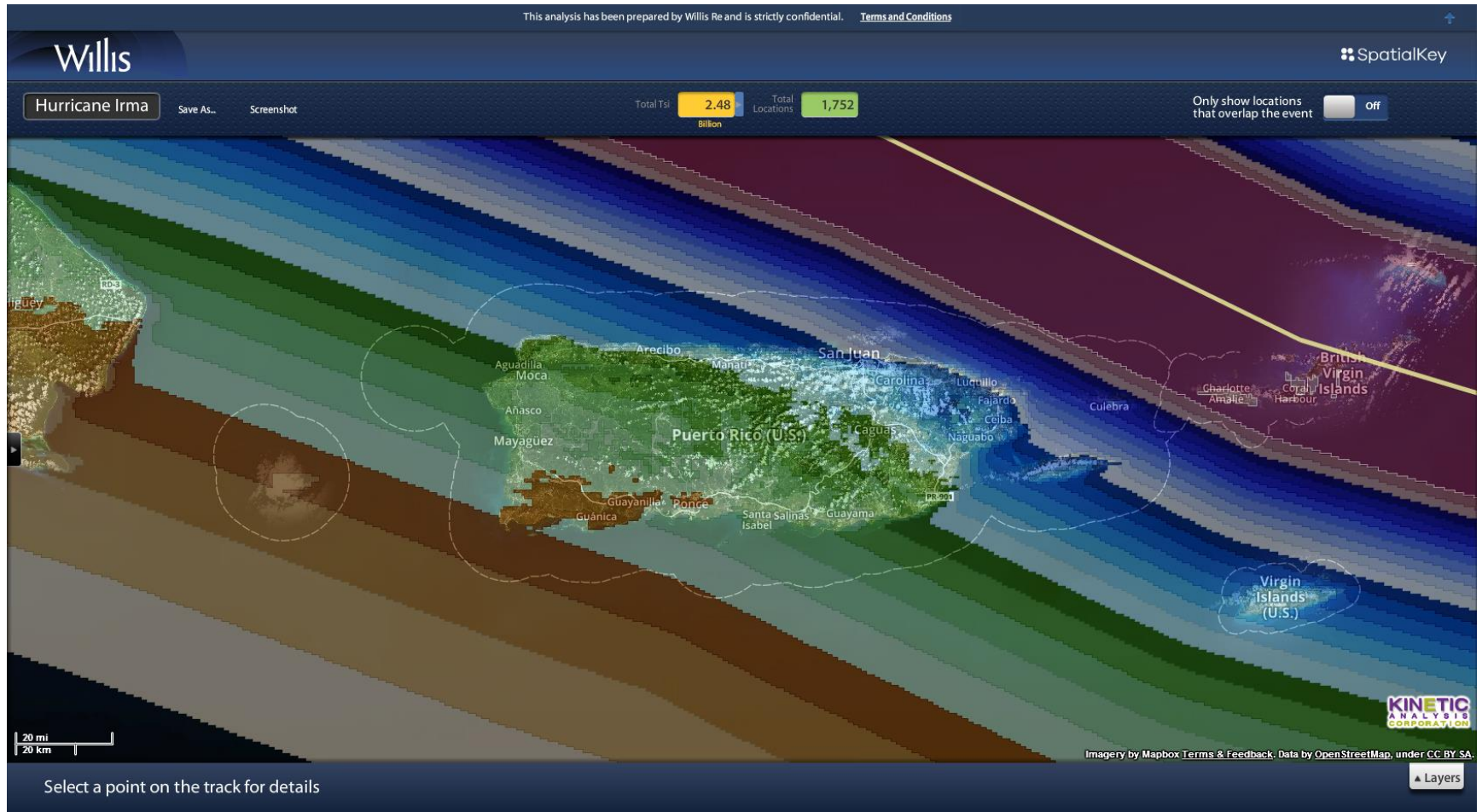


Pre Landfall Scenario

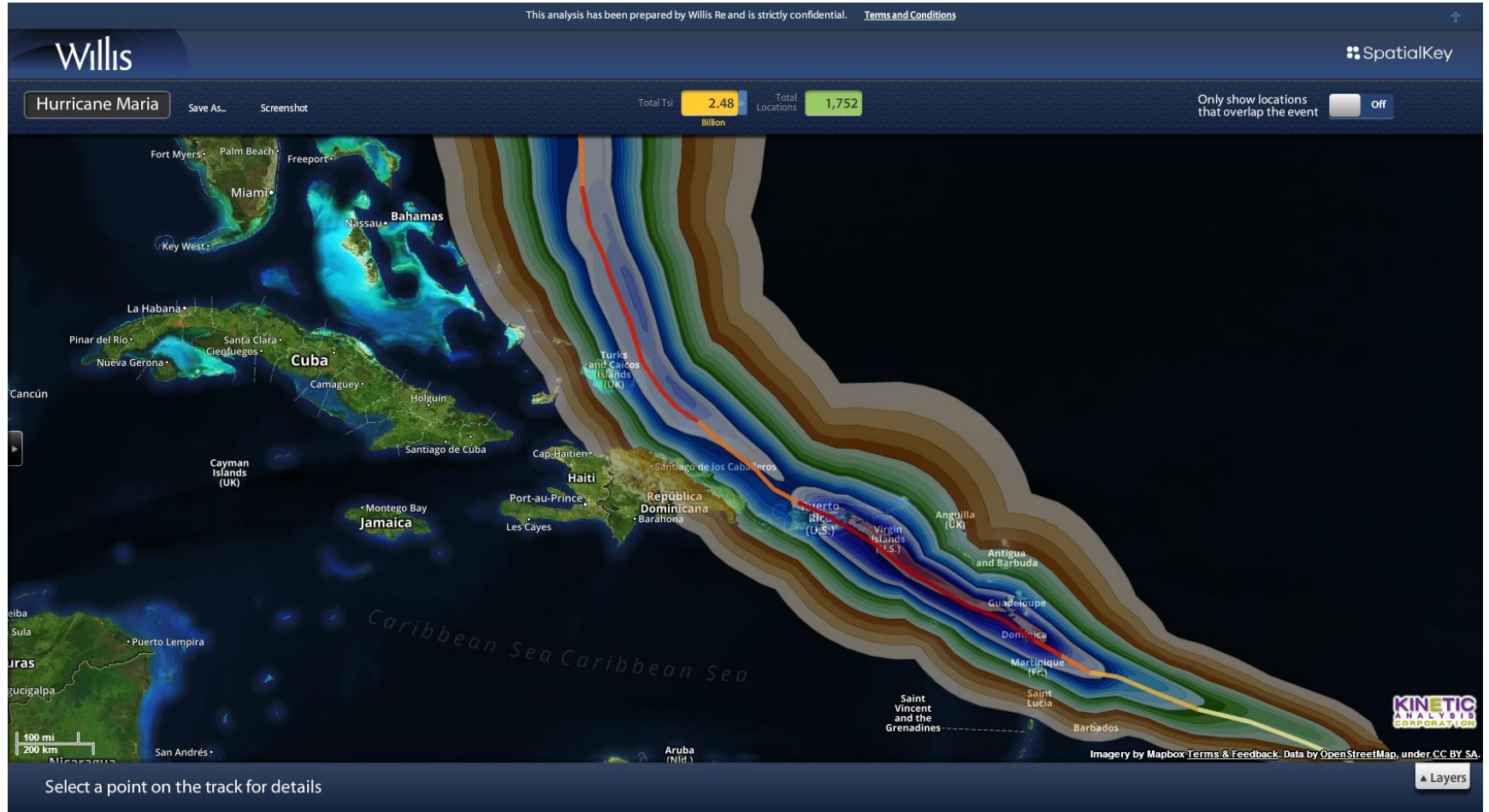
Hurricane Irma: Caribbean Event Tracking



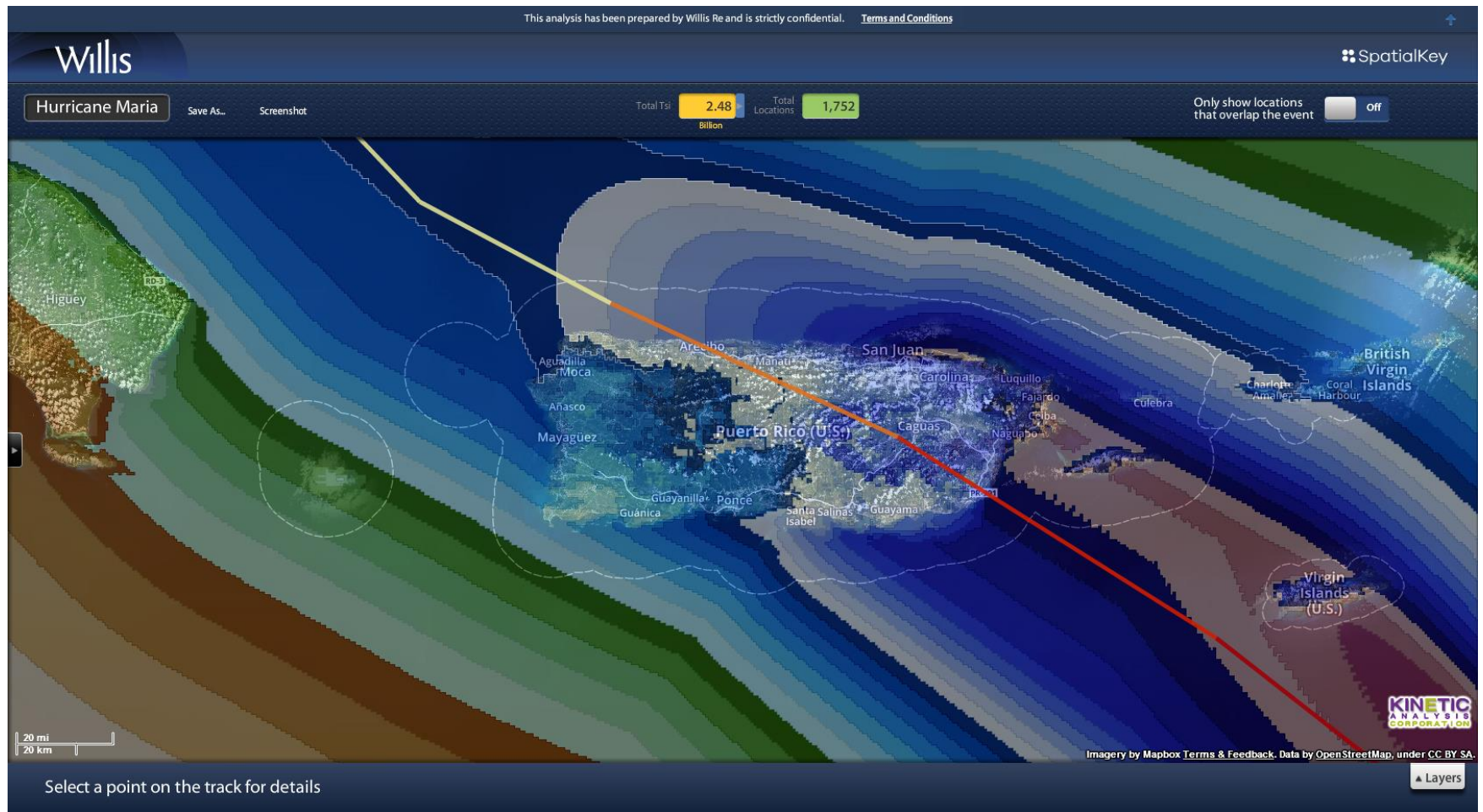
Hurricane Irma: Puerto Rico Event Tracking



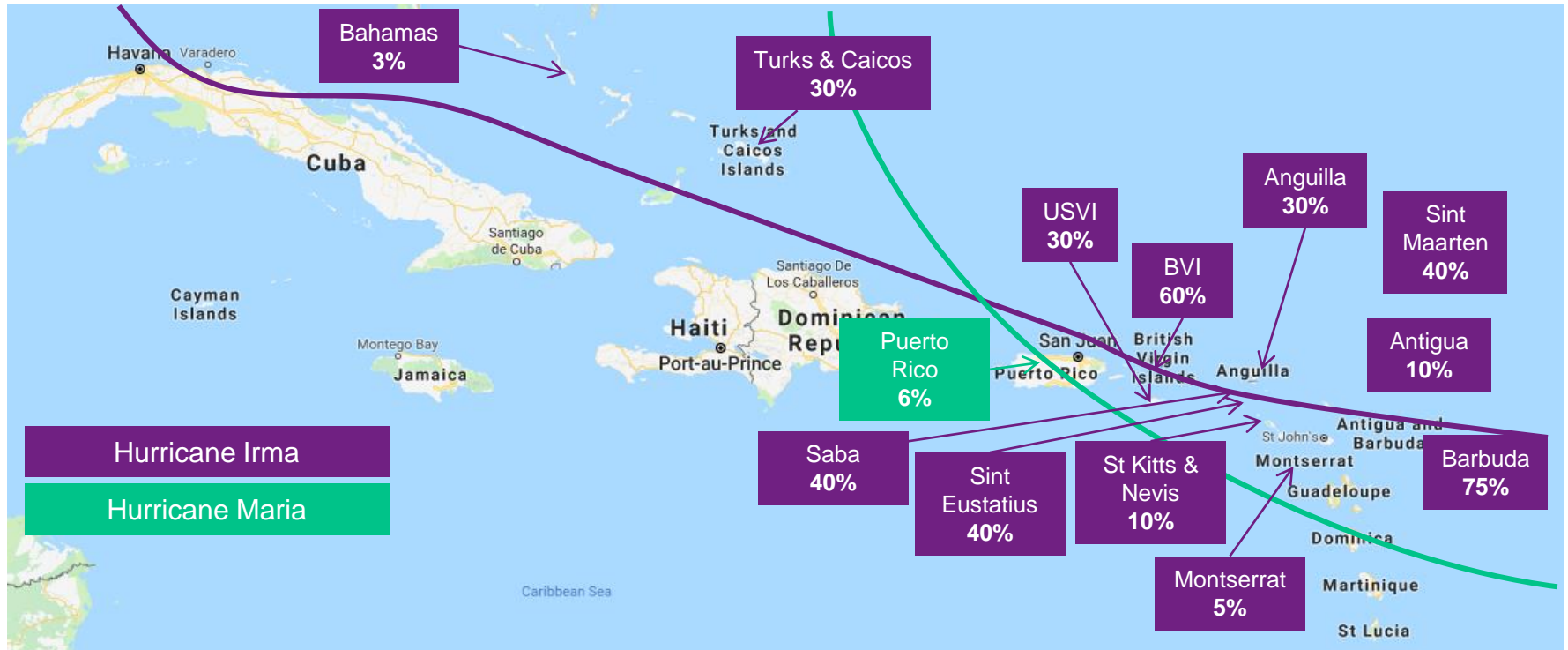
Hurricane Maria: Caribbean Event Tracking

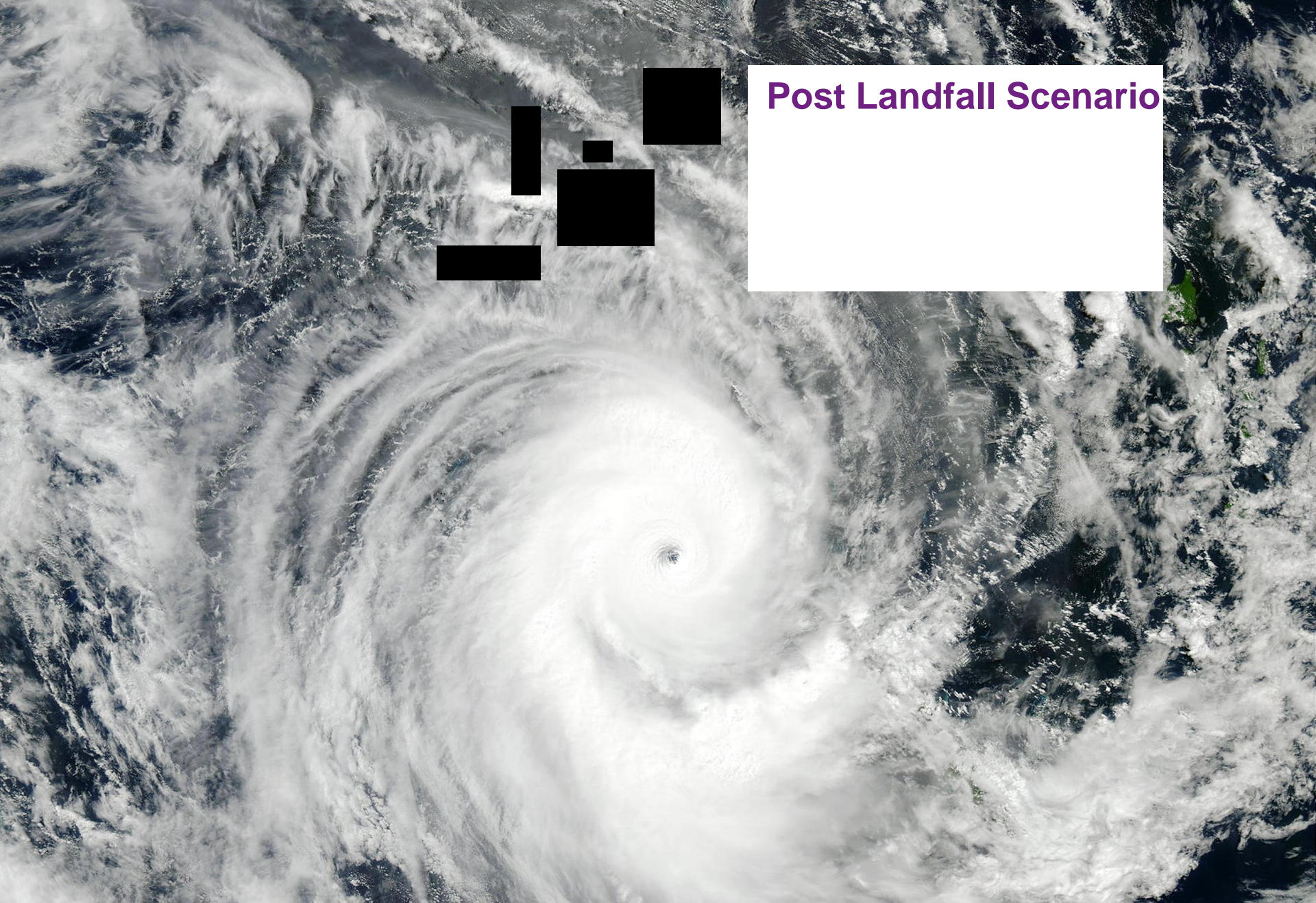


Hurricane Maria: Puerto Rico Event Tracking



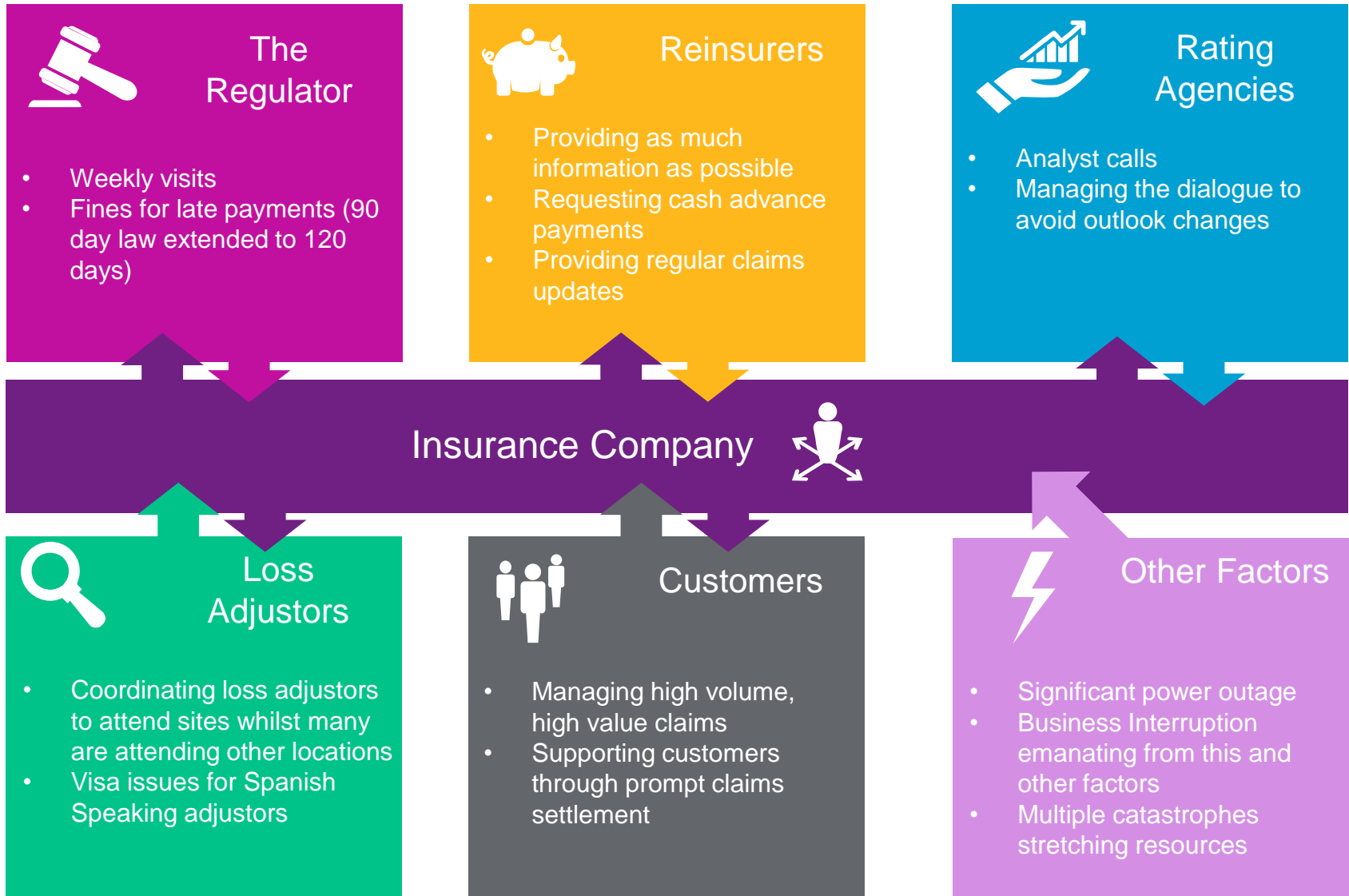
Irma and Maria Damage Ratios





Post Landfall Scenario

Managing Stakeholder Dialogue Post-Hurricane



Puerto Rico 6 Months On: Before and After

24 September 2017



17 March 2018



22 September 2017



18 March 2018



Loss Estimates Development

Hurricane Irma

Hurricane Maria



USD
20-65bn

Original estimate
for the US & select
Caribbean islands

USD
32-60bn

Revised estimate
for the US & select
Caribbean islands

USD
40-85bn

Original estimate
for the Caribbean
loss (85% in Puerto
Rico)

USD
27-48bn

Revised estimate
for the Caribbean
loss (USD 25-43bn
in Puerto Rico)



USD
35-55bn

Original estimate
for the US & the
Caribbean

USD
35-55bn

Revised estimate
for the US & the
Caribbean

USD
15-30bn

Original estimate
for the Caribbean
loss (85% in Puerto
Rico)

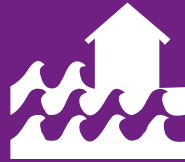
No revised estimate

Insurance and Reinsurance Market Update

Willis Re 1st View Reports

\$136bn

Recent catastrophe loss estimates, making **2017 one of the worst loss years on record** for the global (re)insurance market.



Catastrophe losses have mostly stopped further downward movement in risk adjusted rates.

+60%

Increases in original underlying property rates in Puerto Rico. Original rate increases varied across the rest of the Caribbean.



Continued supply of capital has helped curtail widespread reinsurance risk adjusted rate increases on loss free portfolios.



Additional capacity available from incumbents and new entrants attracted by rate increases



Companies looking to increase event limits on pro rata treaties but not willing to concede on commissions