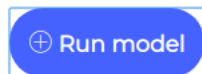# THE ILLUSTRIOUS GUILD OF HACKSMITHS PROUDLY PRESENTS....

Model outputs are expected and worst case disaster aid requirements, with an extra overlay so donors can prioritise to maximise impact
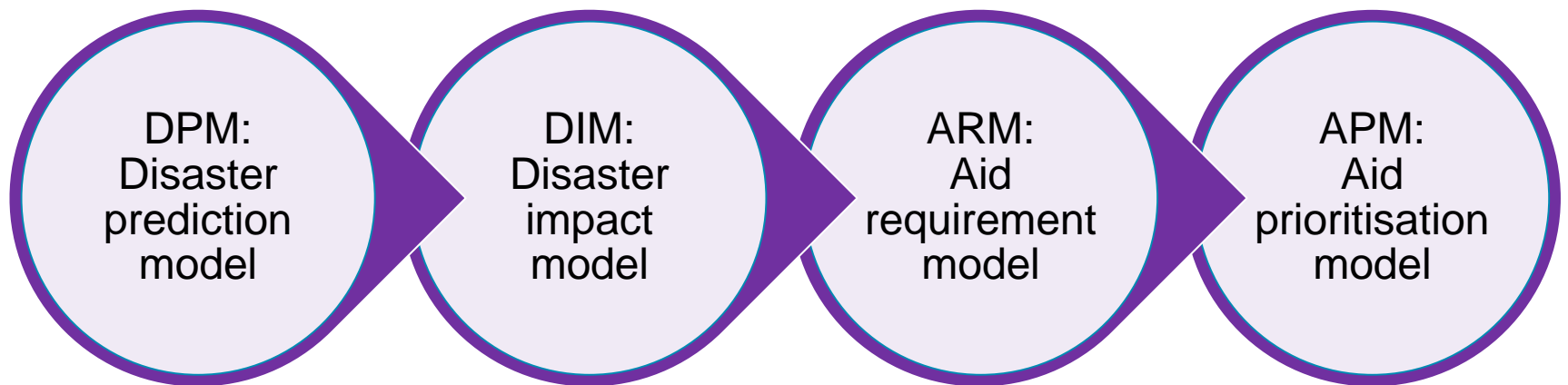
Expected disasters & impact

country	disaster	probability	intensity	affected	damages	totalCost	aidRequired	need
Bangladesh	Flood	0.4	40	800000	600000	31000000	53913043	1.7391304193548387
Indonesia	Flood	0.2	70	3500000	1260000	101500000	193333333	1.9047619014778325
Afghanistan	Earthquake	0.2	70	1120000	1260000	53900000	134750000	2.5
St. Lucia	Cyclone	0.9	25	375	343750	8601250	18107895	2.1052631884900452

⊕ Run model

Model run successfully in 314 ms.

Four modules work in sequence to arrive at the model outputs, but can be adapted and improved incrementally and independently

DPM: Disaster prediction model

DIM: Disaster impact model

ARM: Aid requirement model

APM: Aid prioritisation model

We see three main activities to put this into practice in the short to medium term:

1   **Strong-ARM**   Data standardization and collection on
        (6 months)   disaster aid spending and budgeting

2   **End-to-end Pilot**   Put prototype model into practice with
        (24 months)   pioneer donors and on-the-ground NGOs

3   **Model build and improvement**   Build out each module using available data
        (6 months then ongoing)   and modelling techniques

Four modules work in sequence to arrive at the model outputs, but can be adapted and improved incrementally and independently

Early warning module

Deep dive on modelling techniques

Implement VaR metric using DPM distributions

DPM: Disaster prediction model

DIM: Disaster impact model

ARM: Aid requirement model

APM: Aid prioritisation model

Link to scientific organization outputs

Scenario analysis for extreme events

Generate bottom up budgeting estimates per region