
AWS
re:Invent
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IMP105

Using infrastructure & analytics to plan for humanitarian disasters

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American Red Cross

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Mercy Corps

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Amazon Web Services

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323.9 million people in need

69 countries

$49.95 billion needed

Global Humanitarian Overview 2022

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In 2021

107 million people were helped

Food assistance has been delivered to 7.5 million people in Afghanistan and 6 million people in Syria

In South Sudan, humanitarian action brought 6 countries back from the brink of famine

$1.6 billion in cash-based transfers provided to vulnerable people across 67 countries

Global Humanitarian Overview 2022

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Solutions to meet you where you're at

- Call center in the cloud
- Compute
- Storage
- Data processing
- Machine learning

200+ fully featured services

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Lessons for all of us

- The right partnerships can make all the difference
- Data fluency is becoming table stakes
- Speed is a choice – managed services can help you move faster



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American Red Cross

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Context

Red Cross Mission

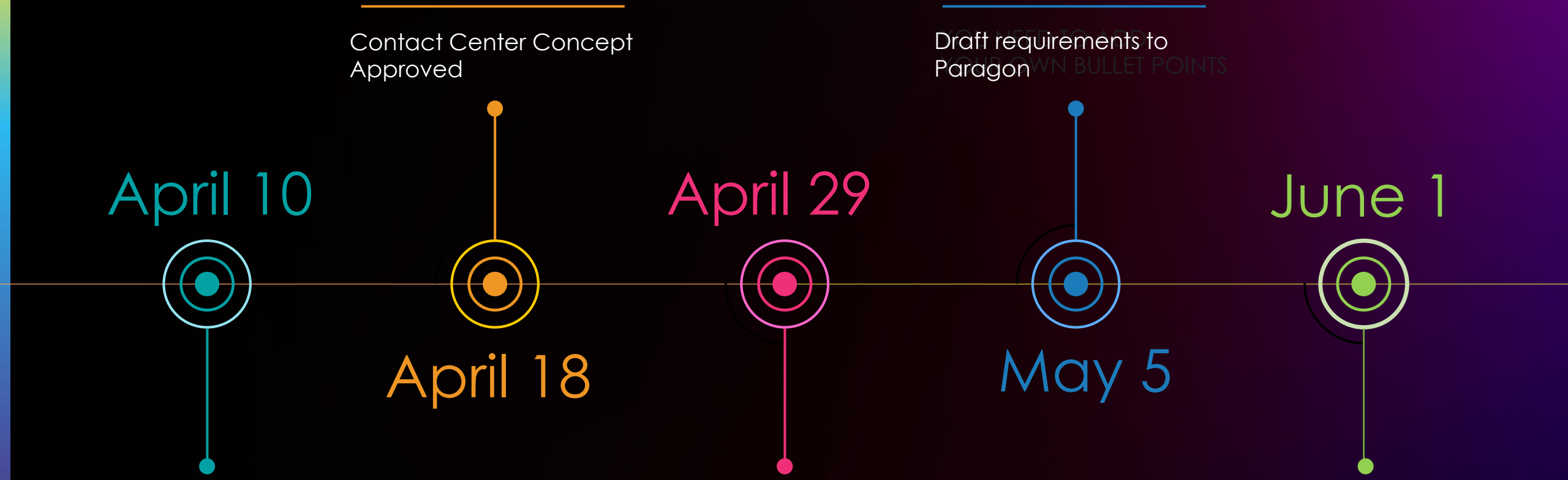
Poland

Polish Red Cross



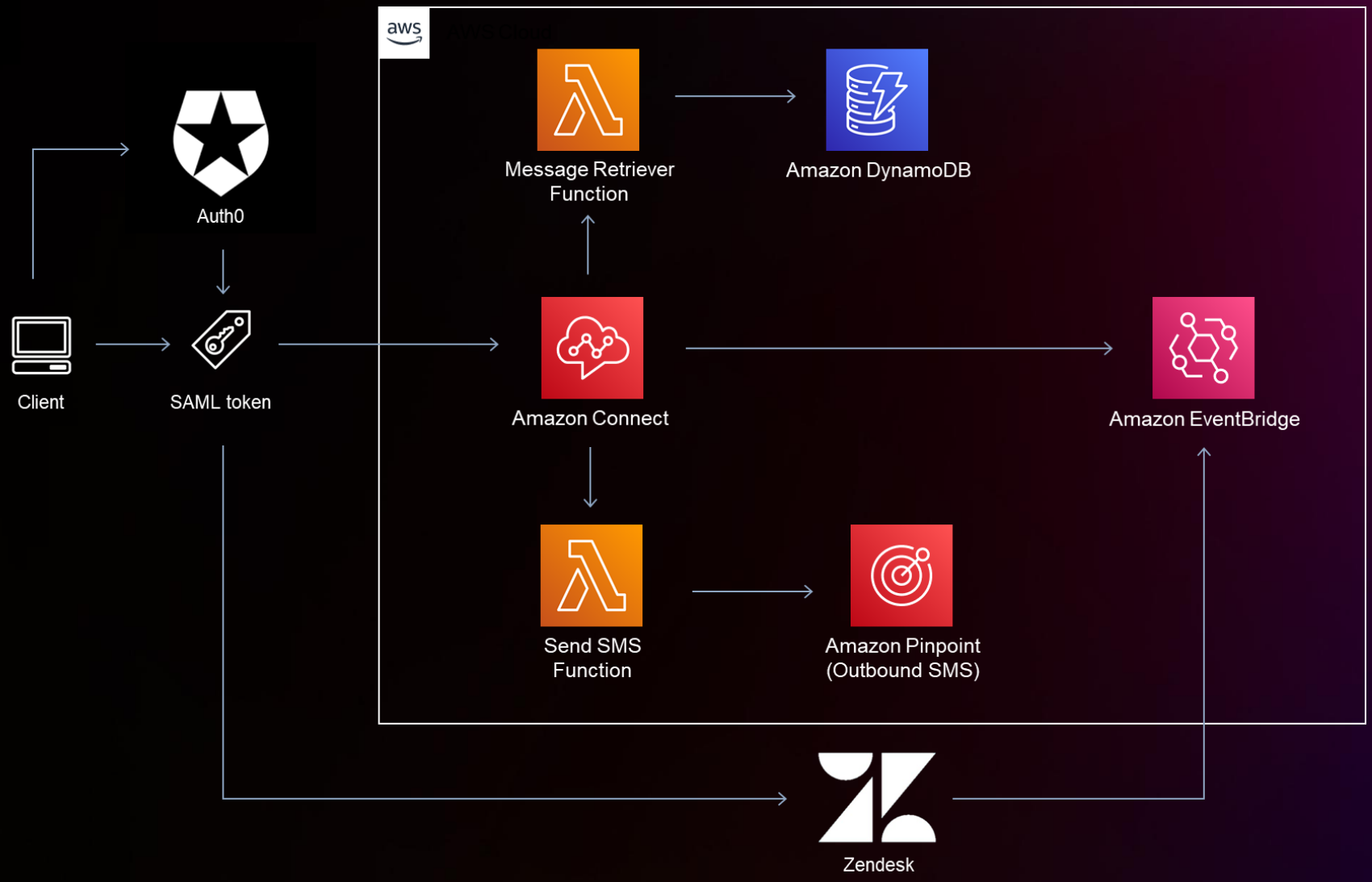
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The Ask



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The solution



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The Impact

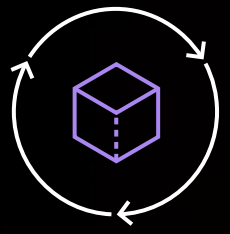


- Over 25,000 families provided cash assistance
- ~250 calls per day
- 600 chatbot tickets escalated to agents
- Working group formed to standardize contact center operations

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Serverless enables you to focus on mission outcomes



Agility

Launch faster, deliver features



Performance

High performance and scalability



Cost

Pay for value, lower TCO



Security

Security and isolation by design

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Mercy Corps

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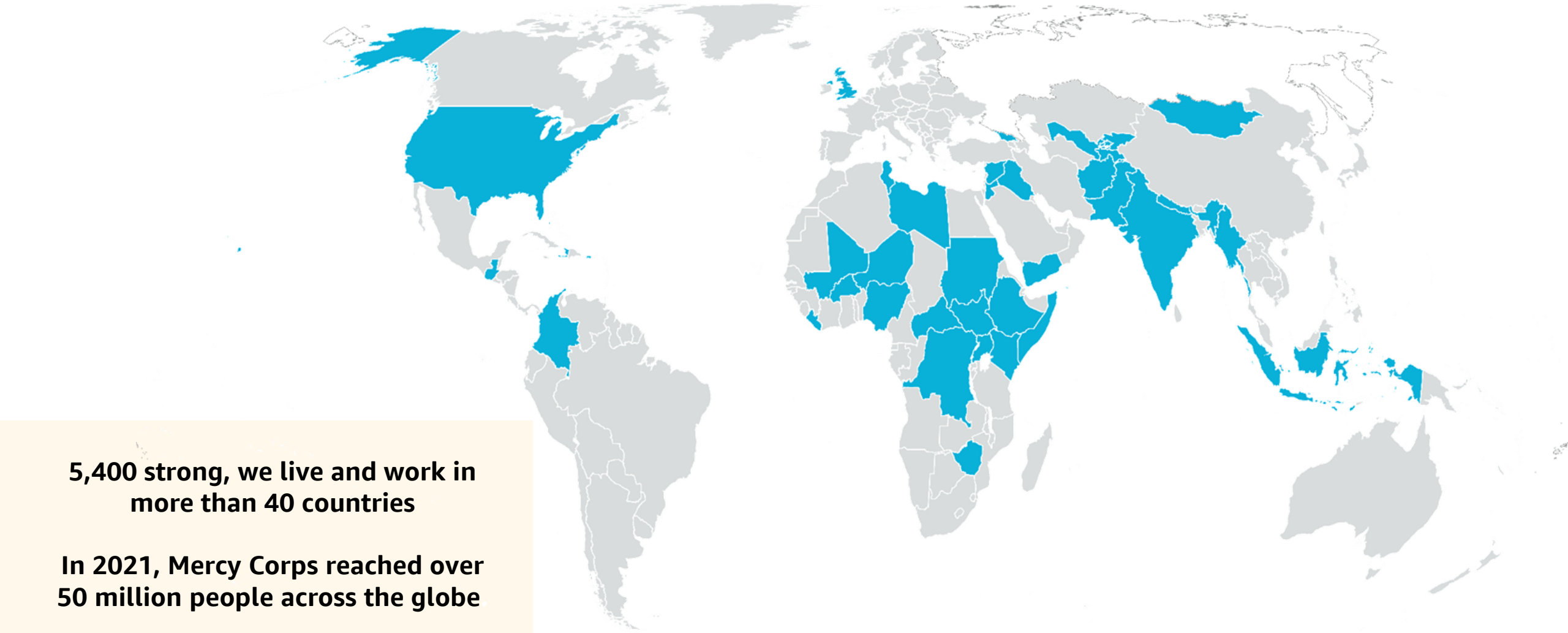


Meet Mercy Corps

Mercy Corps is a global team of humanitarians working alongside communities to take on today's toughest challenges and shape a future where everyone can prosper

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MERCY CORPS



5,400 strong, we live and work in more than 40 countries

In 2021, Mercy Corps reached over 50 million people across the globe

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MERCY CORPS

Responding to complex crises

Acute crisis





Slow onset crisis

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Responding to complex crises

Complex crisis

Climate change

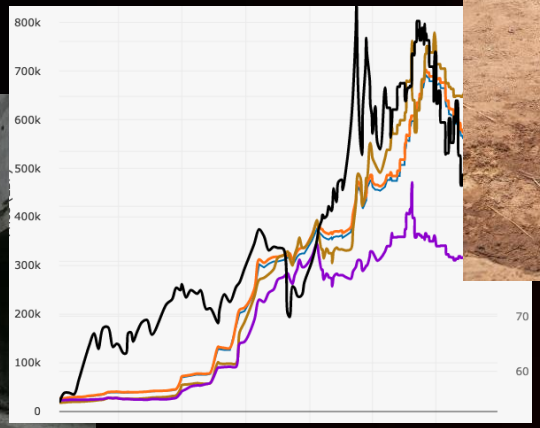




Natural hazards

Sustained conflict





Ongoing economic crisis

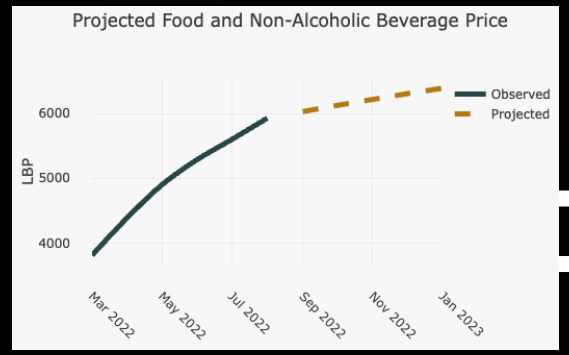
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Responding to crisis

Adaptive programming

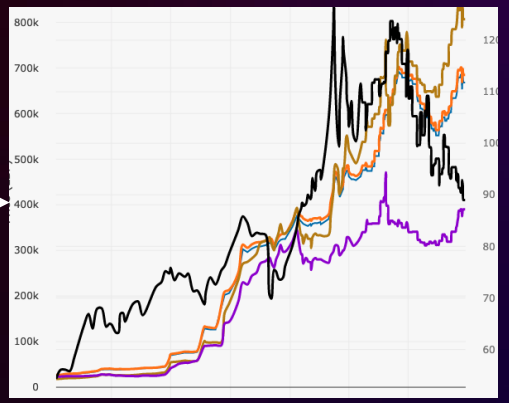
Amend programming to maximize resources based on a probable future



Slow onset crisis

Action





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Responding to crisis

Anticipatory action

Taking advance action to ward off a crisis or reduce the impact of the crisis



Pre-crisis

Action





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Global food crisis



In just two years, the number of people facing, or at risk of, acute food insecurity increased from 135 million in 53 countries pre-pandemic, to 345 million in 82 countries today

World Food Programme, https://www.wfp.org/emergencies/global-food-crisis

GLOBAL FOOD CRISIS HUB

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Global food crisis

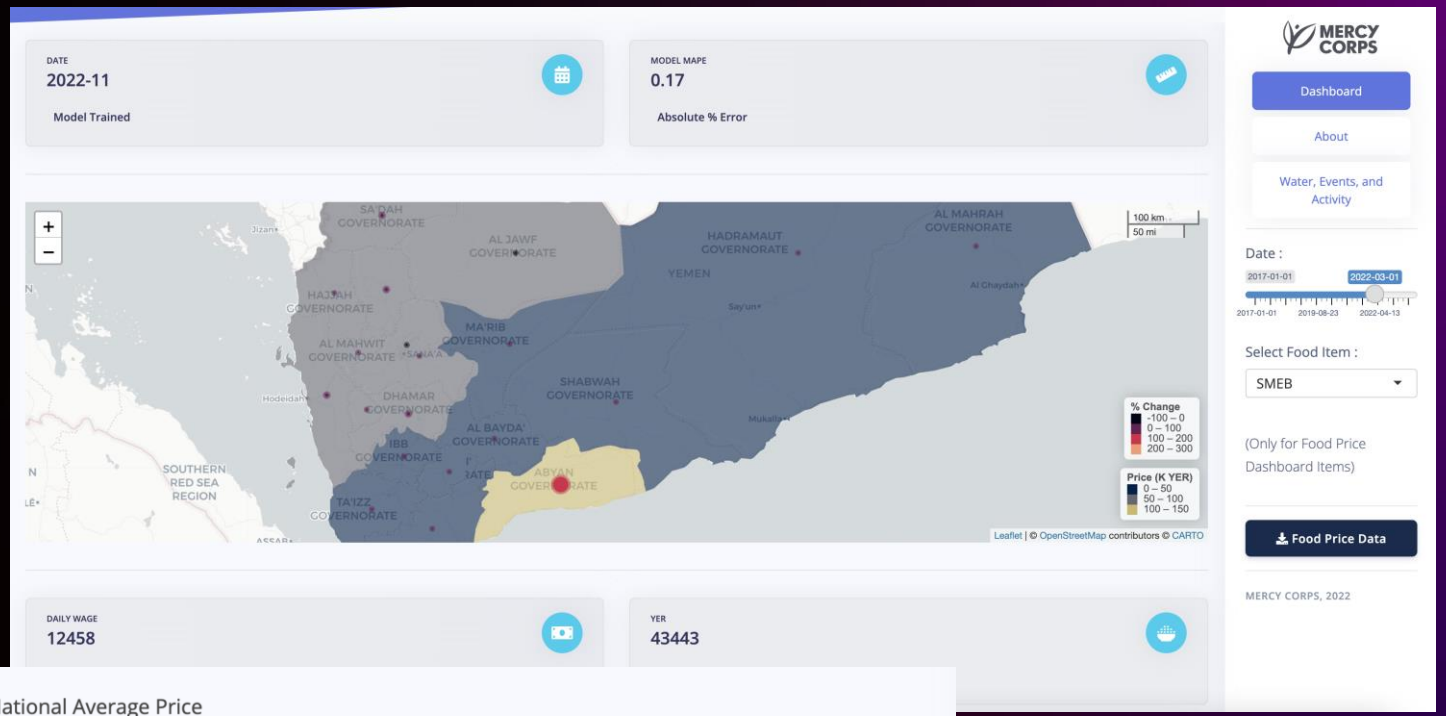
1. Replicable data science
2. Data access and availability
3. Catalyzing change

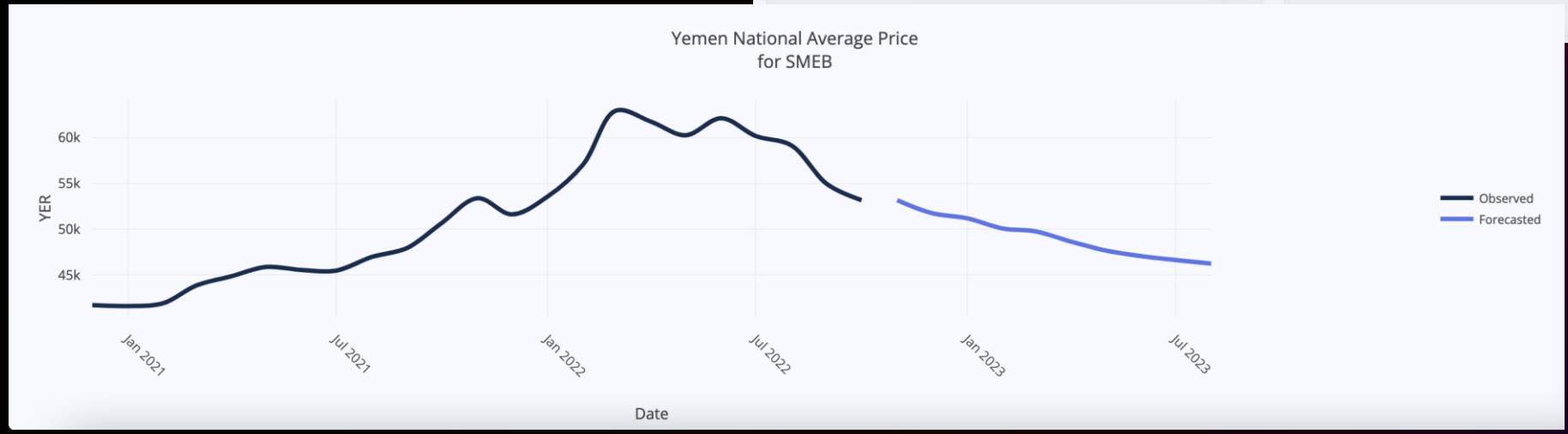
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Global food crisis: Amazon Forecast



Amazon Forecast





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Global food crisis: AWS Amplify

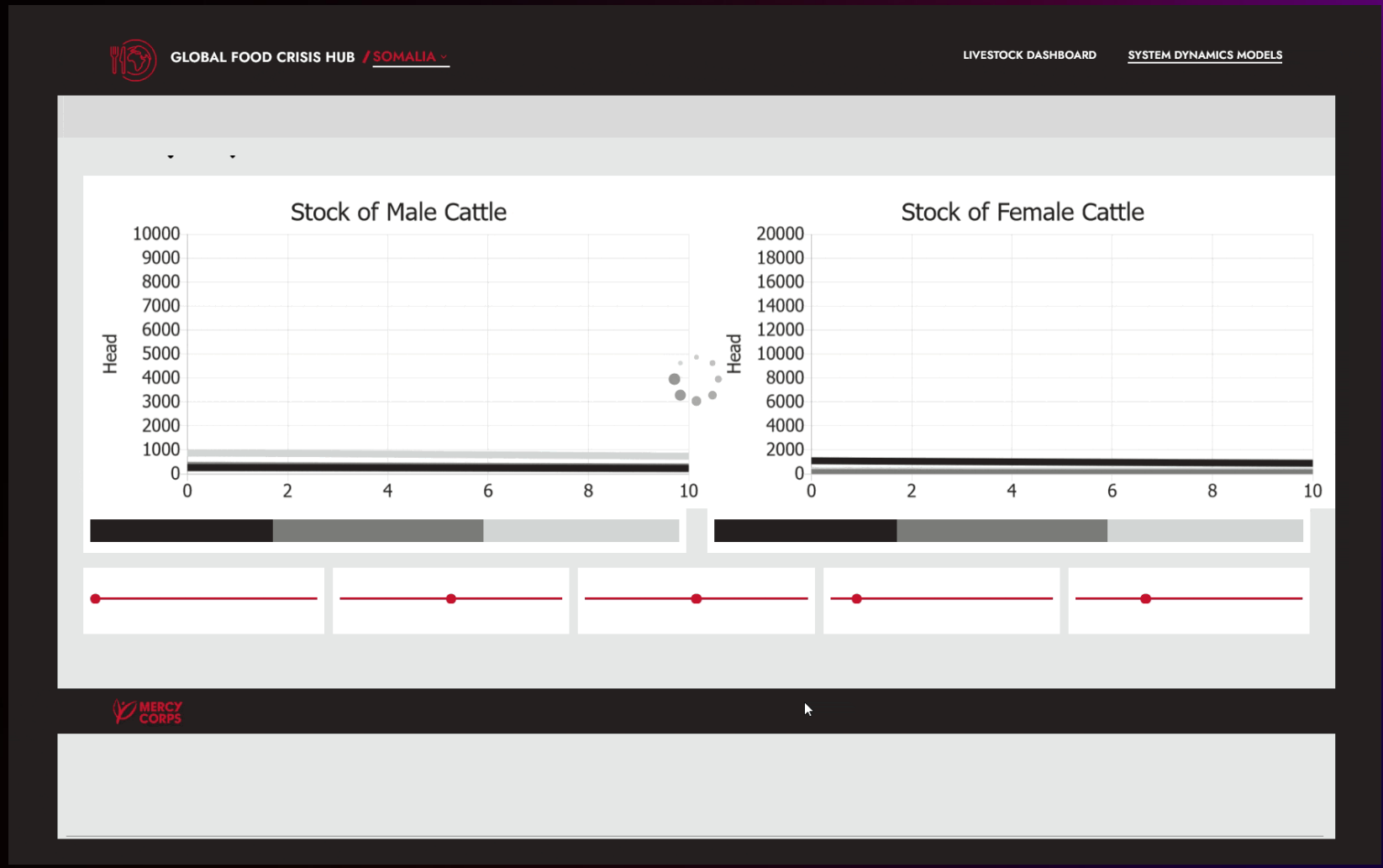


AWS Amplify





- LivestockSystemsWebApp
  - custom.css
  - fonts
  - images
  - index.html
  - index.min.js
  - lib
    - bootstrap.min.css
    - bootstrap.min.js
    - font-awesome.min.css
    - jquery.min.js
    - text-metrics.min.js
  - model_sde.js
  - model_sde.wasm
  - styles.css
  - web-styles.css



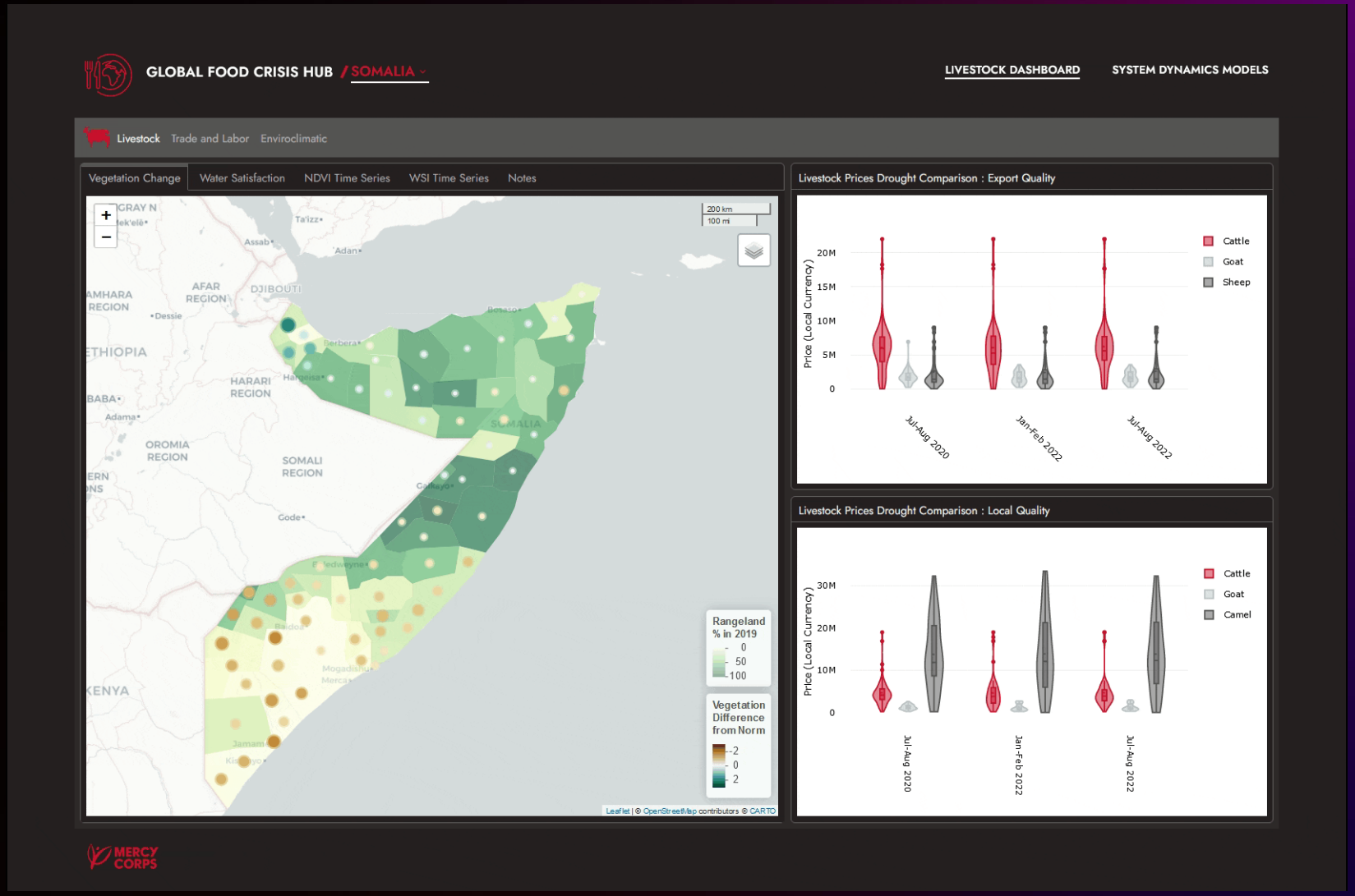
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Global food crisis: AWS Elastic Beanstalk

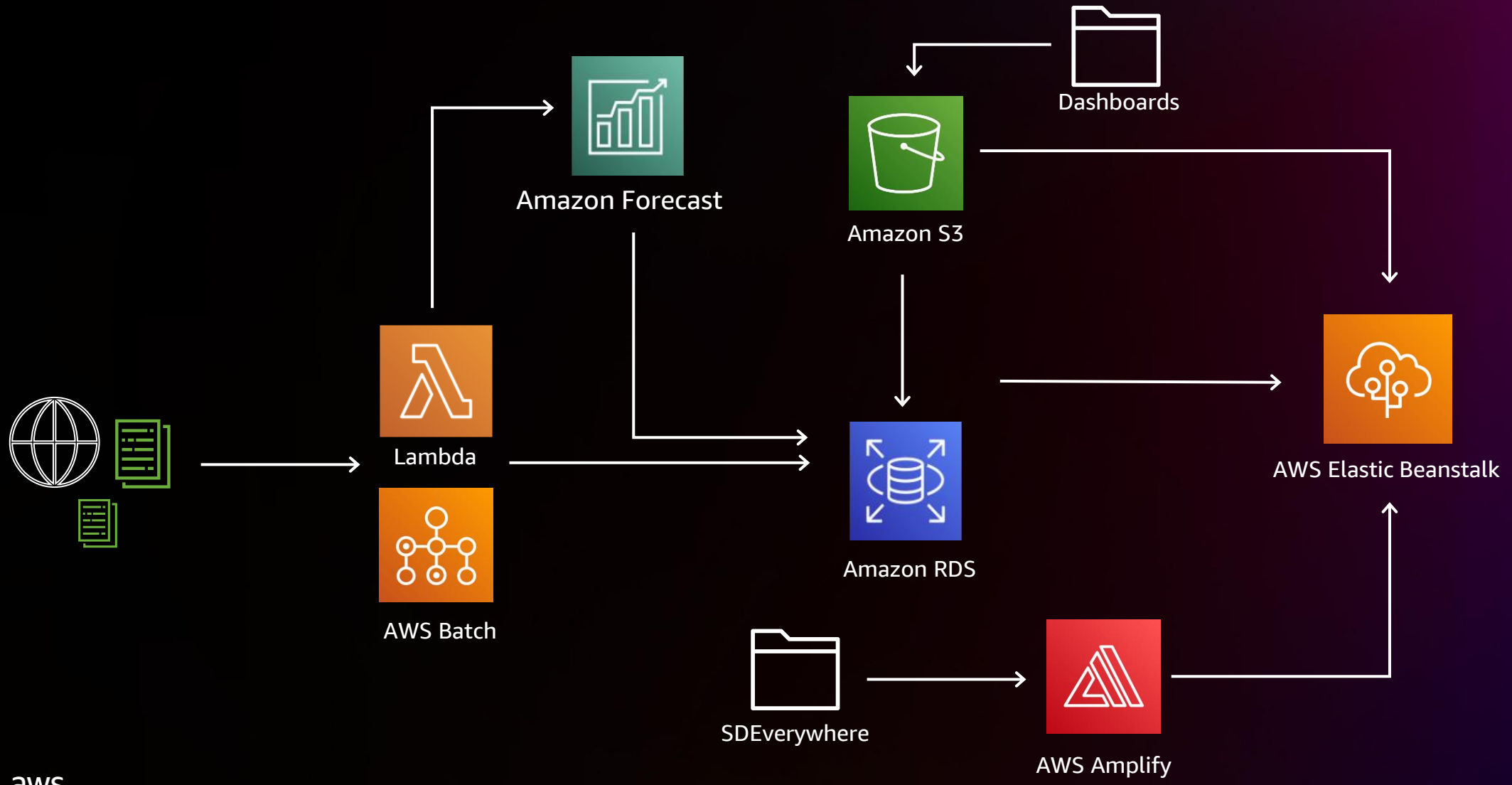


AWS Elastic Beanstalk



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Global Food Crisis Hub: Architecture



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Catalyzing action: Challenges and opportunity

1. Awareness, capacity, and skills
   - Data literacy, upskilling

2. Evidence
   - Experimentation, proof of concept, partnerships

3. Investment in fundamental architecture
   - Data science strategy

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Takeaways

- Speed is a choice
- Leveraging services built for the cloud can help you better fulfil your mission
- Partnership can achieve the impossible
- Become data fluent! Understand the power of data and work to yield that power effectively

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Thank you!

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