



Foreign, Commonwealth
& Development Office

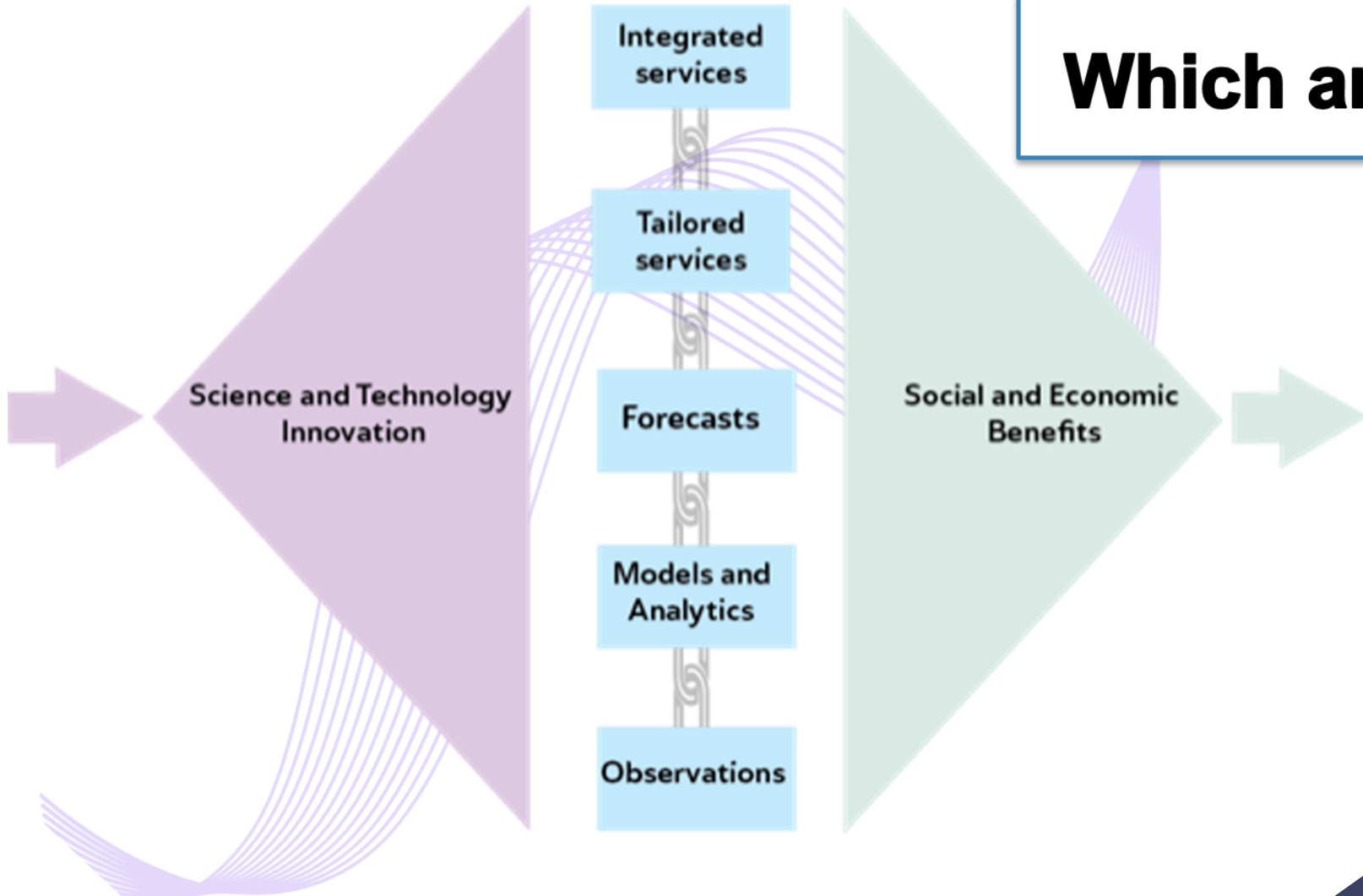
SOUTH ASIA HYDROMET FORUM III

SESSION 3: IMPROVING WEATHER AND CLIMATE FORECASTS FOR THE REGION

Evolution of the Global Weather Enterprise

Alan Thorpe

November 15-18, 2021
Annual Event- Virtual



Which are the weak links?

Science and Technology Innovations

- **Miniaturisation of satellites; filling gaps in sfc-based observations; IoT observations**
- **Higher resolution NWP; fully coupled Earth system models and digital twins**
- **Use of ML/AI in NWP and in services**
- **Digital data access via “weather clouds”**

EVOLUTION OF HYDROMET SERVICES

Impact-based forecasts stepping towards fully “integrated services”

Forecasting risks and economic/business opportunities – the “new economy”

Capabilities of the private sector increasing

INTEGRATED SERVICES

Operational decision-to-act



Merging digital data and analytics on all factors



Other factors that influence a decision-to-act



Tailored (“impact-based”) Hydromet forecast



“Outcome” sensitive to Hydromet

DELIVERING HYDROMET SERVICES

Requires:

- **national capacity and capability to access and use digital hydromet data from new global weather-clouds**
- **more global, regional and national collaboration across the public sector and with the private sector**
- **better integration across national institutions**

The logo for the South Asia Hydromet Forum III 2021 features a stylized, flowing ribbon that starts in blue at the top left, curves through green and yellow, and ends in orange at the bottom left. The text 'SOUTH ASIA' is positioned to the left of the ribbon's middle section, while 'HYDROMET FORUM III' and '2021' are stacked to its right. A decorative background of thin, purple, wavy lines flows from the bottom left towards the center, and a large yellow triangle is in the top right corner.

SOUTH ASIA

HYDROMET FORUM III

2021

**PROGRAM TO SUPPORT SOUTH ASIA REGIONAL DEVELOPMENT IN
OPERATIONAL FORECASTING AND SERVICE DELIVERY**

SAHF Website: <https://sahf3event.rimes.int/>