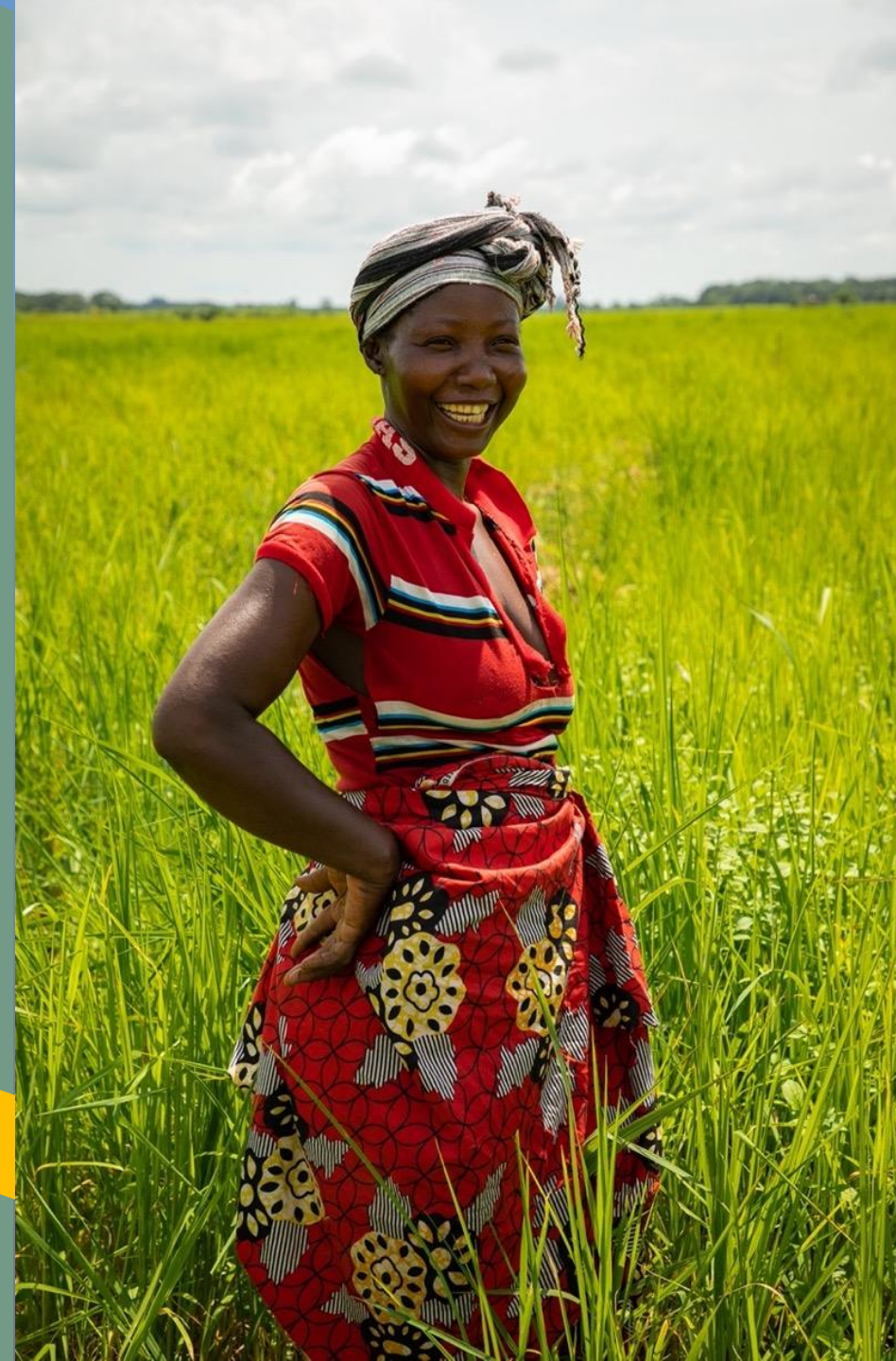


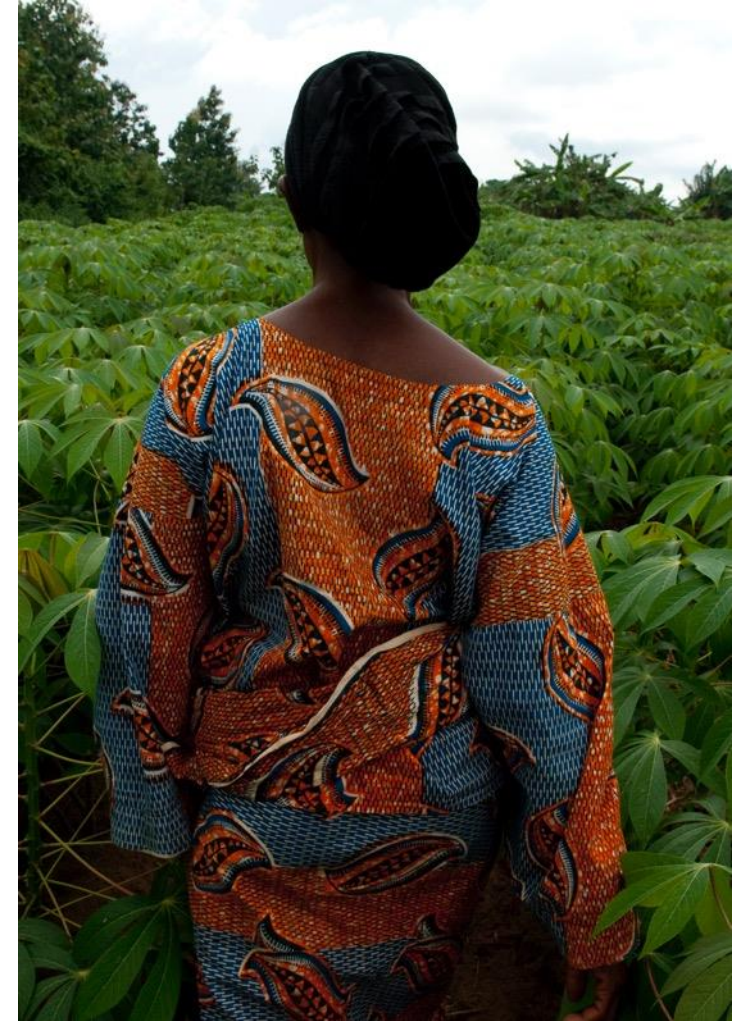
# Harnessing the Potential of Innovative Data Sources in SP Program Implementation

Potential, challenges and examples



## Session Overview

- 01 Motivation
- 02 Four major data sources
- 03 Challenges
- 04 Insights & outlook
- 05 Discussion

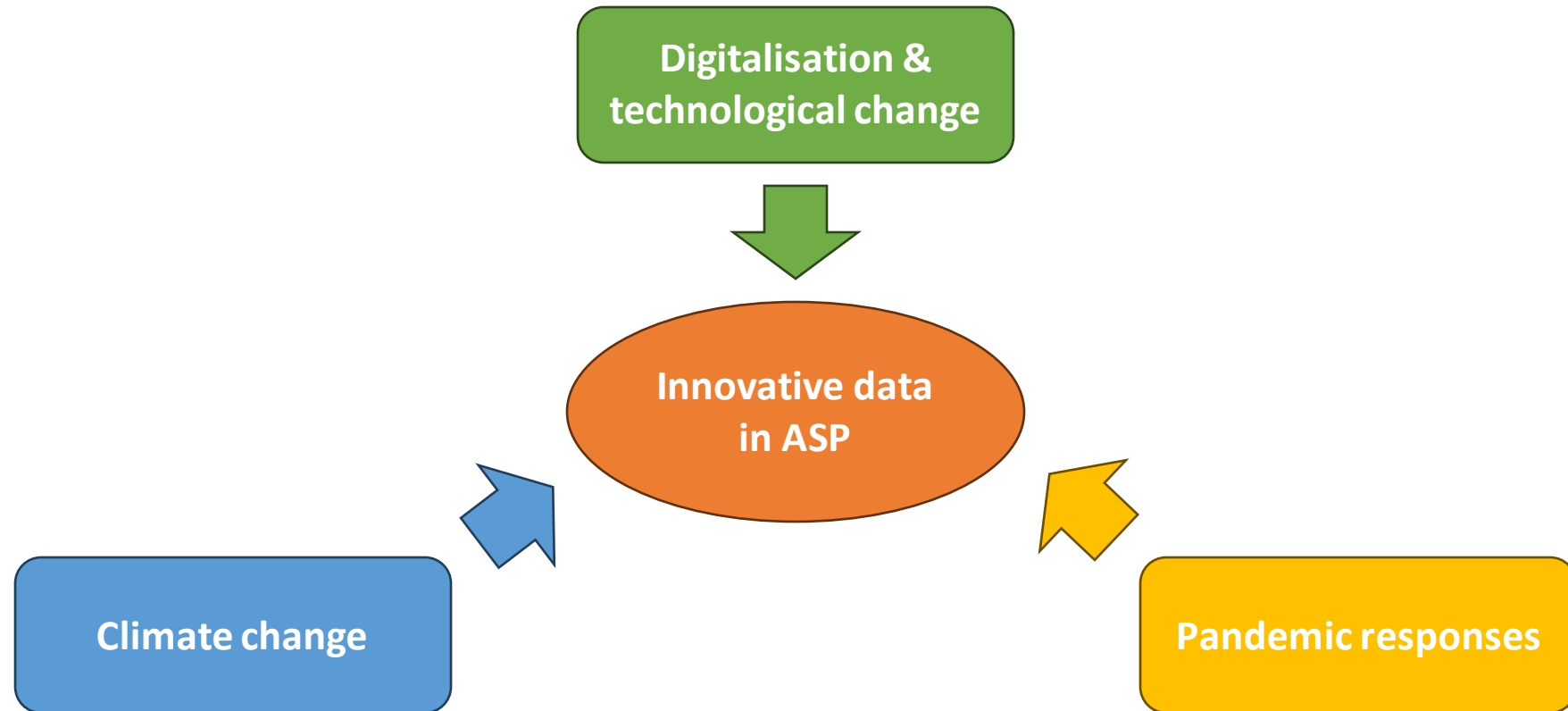


01

# Motivation

# Motivation

Trends towards use of innovation data sources





# 02

## Five major data sources

## Satellite images

Satellites record the entire inhabited planet at different spectral bands and resolutions, ranging from free, publicly available, infrequent low-resolution images to high resolution, multi-band, high frequency images

### Key opportunities

- Geographic targeting
- Adaptive targeting: damage detection
- Monitoring & evaluation

### Major challenges

- Implementation capacity – computation & human resources
- Cost of high-resolution imagery

### Examples



#### STEP-KIN

Satellite data to identify poor areas of Kinshasa



#### Prosperia

**Costa Rica, Brazil**

High resolution imagery to inform outreach and identify climate shock vulnerability

## Phone meta-data

Logs of phone usage called Call Detail Records, such as top-ups and messages, but not the contents of calls and texts

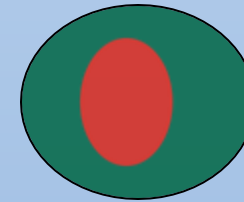
### Key opportunities

- Outreach and intake via text menus and interactive voice
- Eligibility determination based on location and phone usage
- Cash transfer via mobile money
- Monitoring & evaluation of withdrawals, perhaps expenditure

### Major challenges

- Data access from private sector mobile network operators
- Privacy protection risks from personal mobility & finance data
- Digital exclusion of those without regular phone access

### Examples



#### Bangladesh

Drop in phone usage to identify pandemic-affected households



#### Togo

Machine learning model to estimate wellbeing from call detail records

## Sensors

Satellite-based sensing of non-visual information and local sensors such as weather stations and water gauges

### Key opportunities

- Real-time shock monitoring
- Shock prediction for anticipatory action

### Major challenges

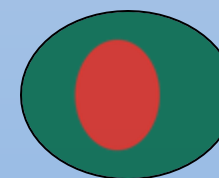
- Data access
- Data accuracy and representativeness
- Technical capacity

### Examples



#### Niger

Remote sensing of drought conditions to trigger cash transfers



#### Bangladesh

Drop in phone usage to identify pandemic-affected households



## Digital finance

Transactions and asset data from sources including banks, asset registers, and payment providers

### Key opportunities

- Means testing & welfare proxies
- Dynamic re-assessment
- Monitoring & evaluation

### Major challenges

- Digital exclusion
- Privacy and surveillance
- Algorithmic fairness

### Examples



#### Bangladesh

Ownership of government securities for affluence testing



#### Colombia

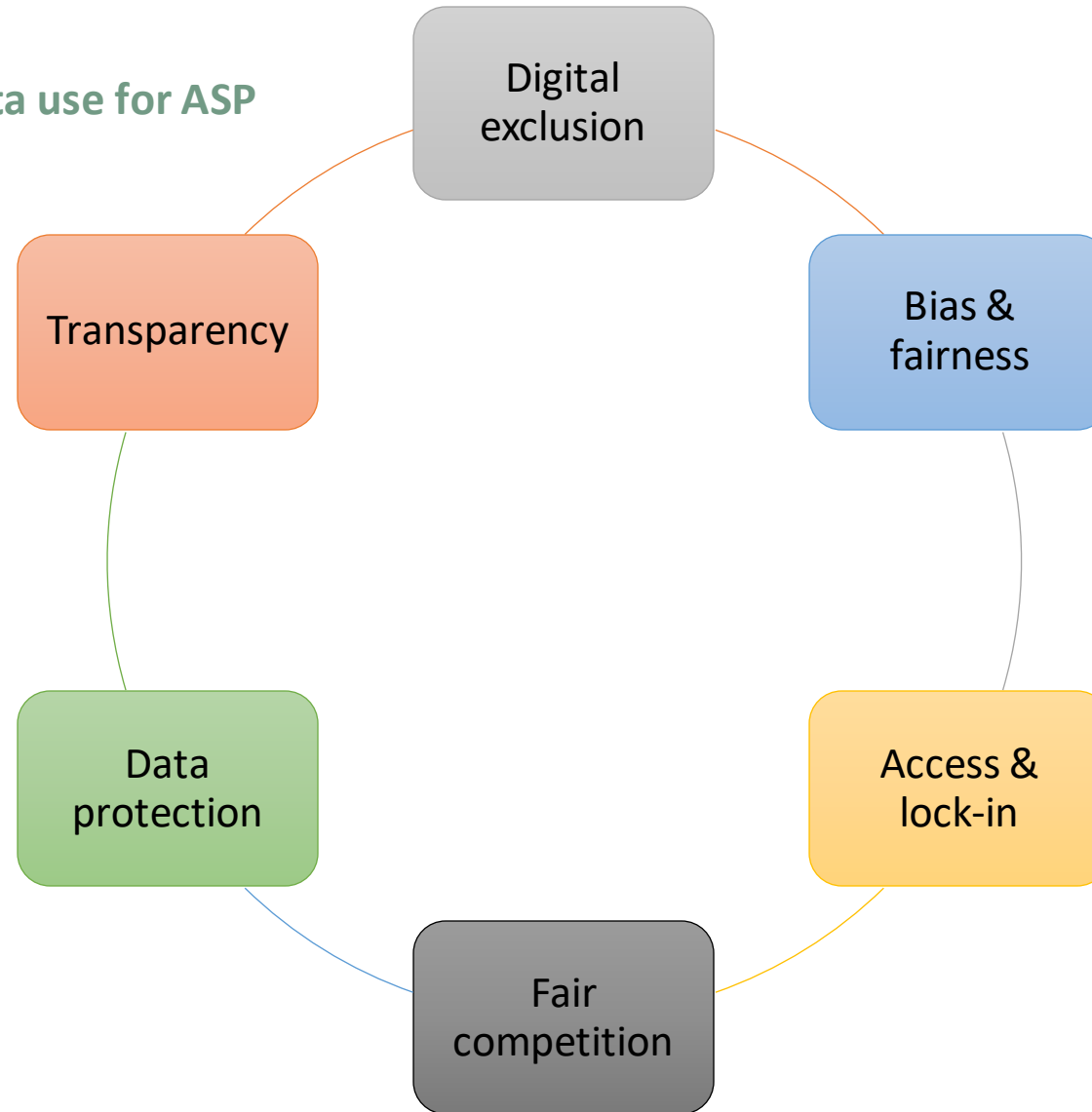
Private-sector credit score as an input to proxy means testing

03

# Challenges

## Major challenges

### Hurdles to effective novel data use for ASP

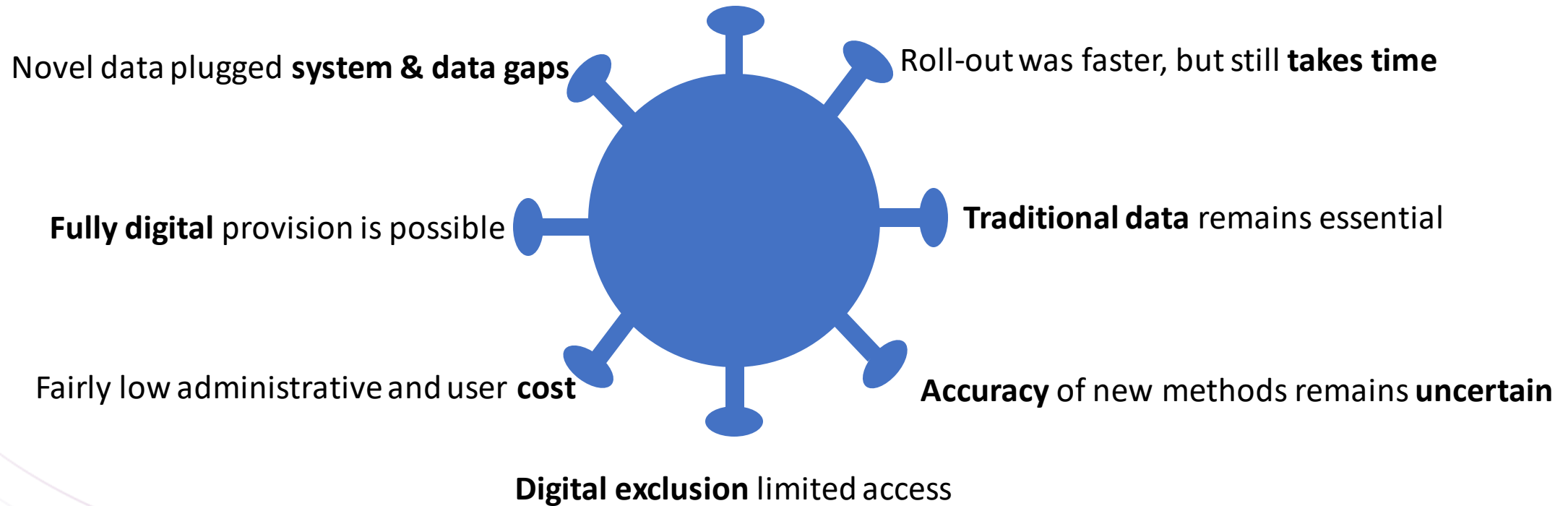


# 04

## Insights & outlook

## Pandemic insights

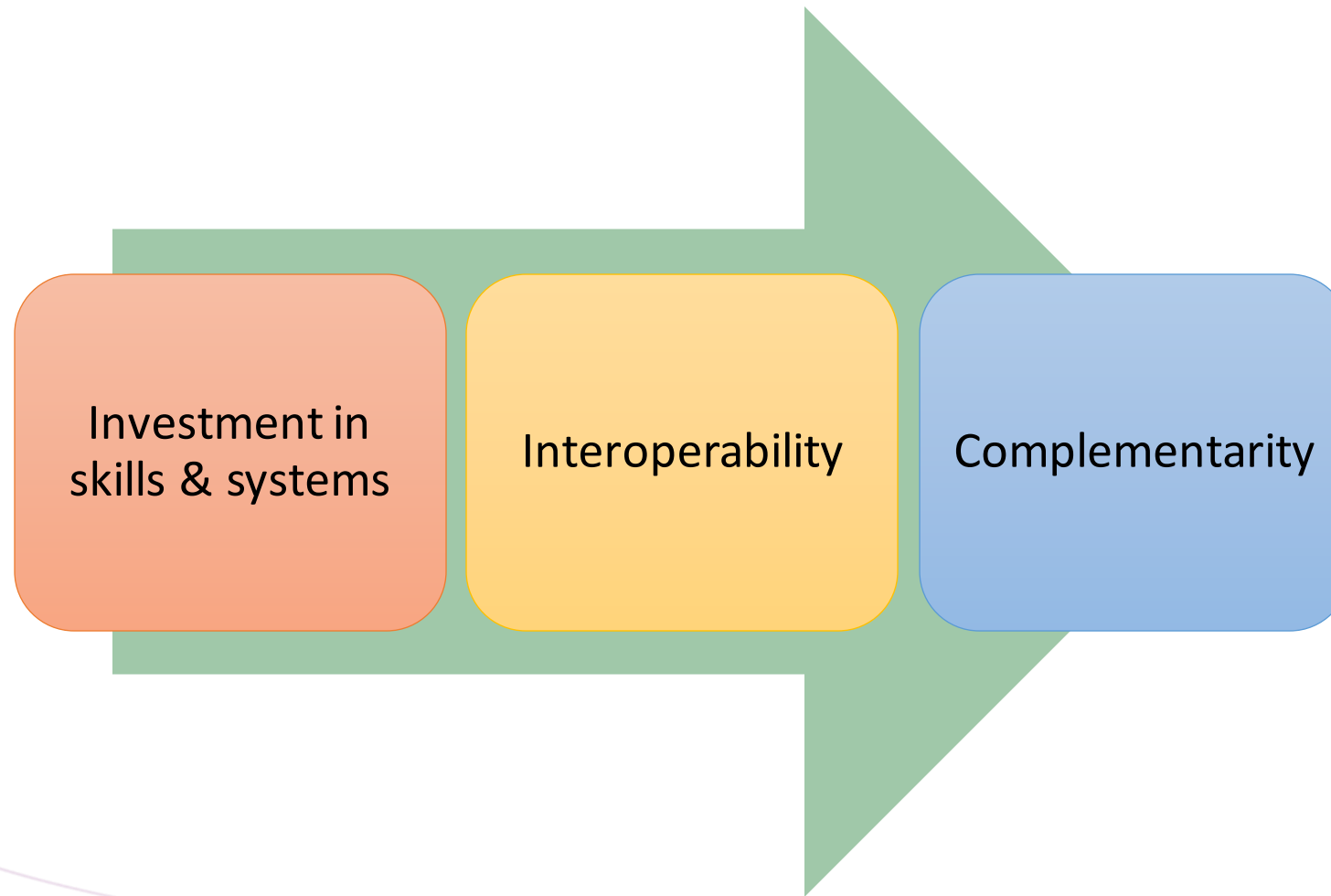
### Some lessons from COVID-19 social protection responses





# Outlook

Future perspectives for novel data in adaptive social protection



05

Have your say

Questions?

Comments!

Feedback 😊



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# THANK YOU