

From Research to Sustainable Development Action: Digital Transformation of Public Services and Subsidies to Achieve SDGs



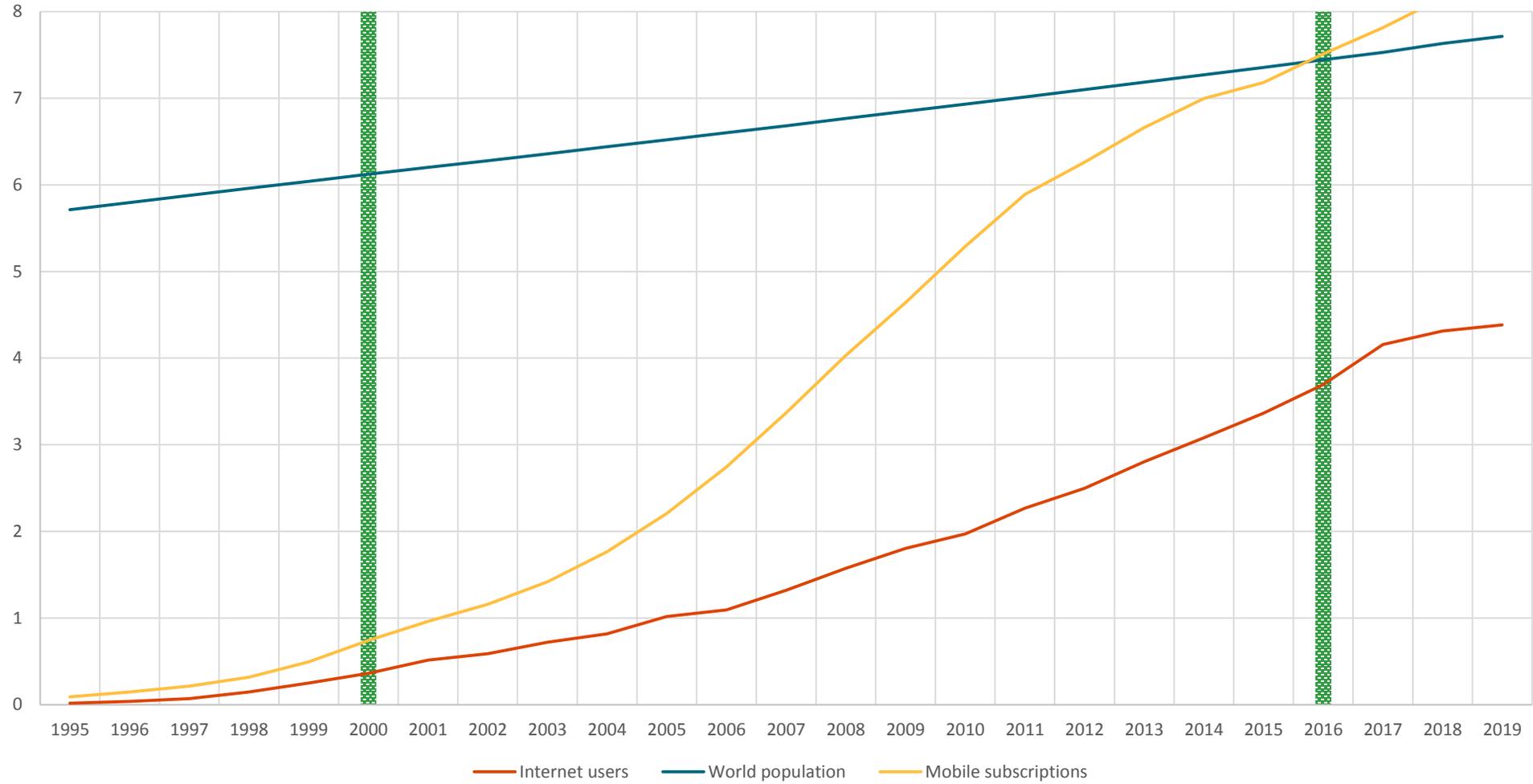
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Center for Global Development, Washington DC

Global Development Network Conference, Bonn



Population, Mobile Subscriptions and Internet Users in Billions



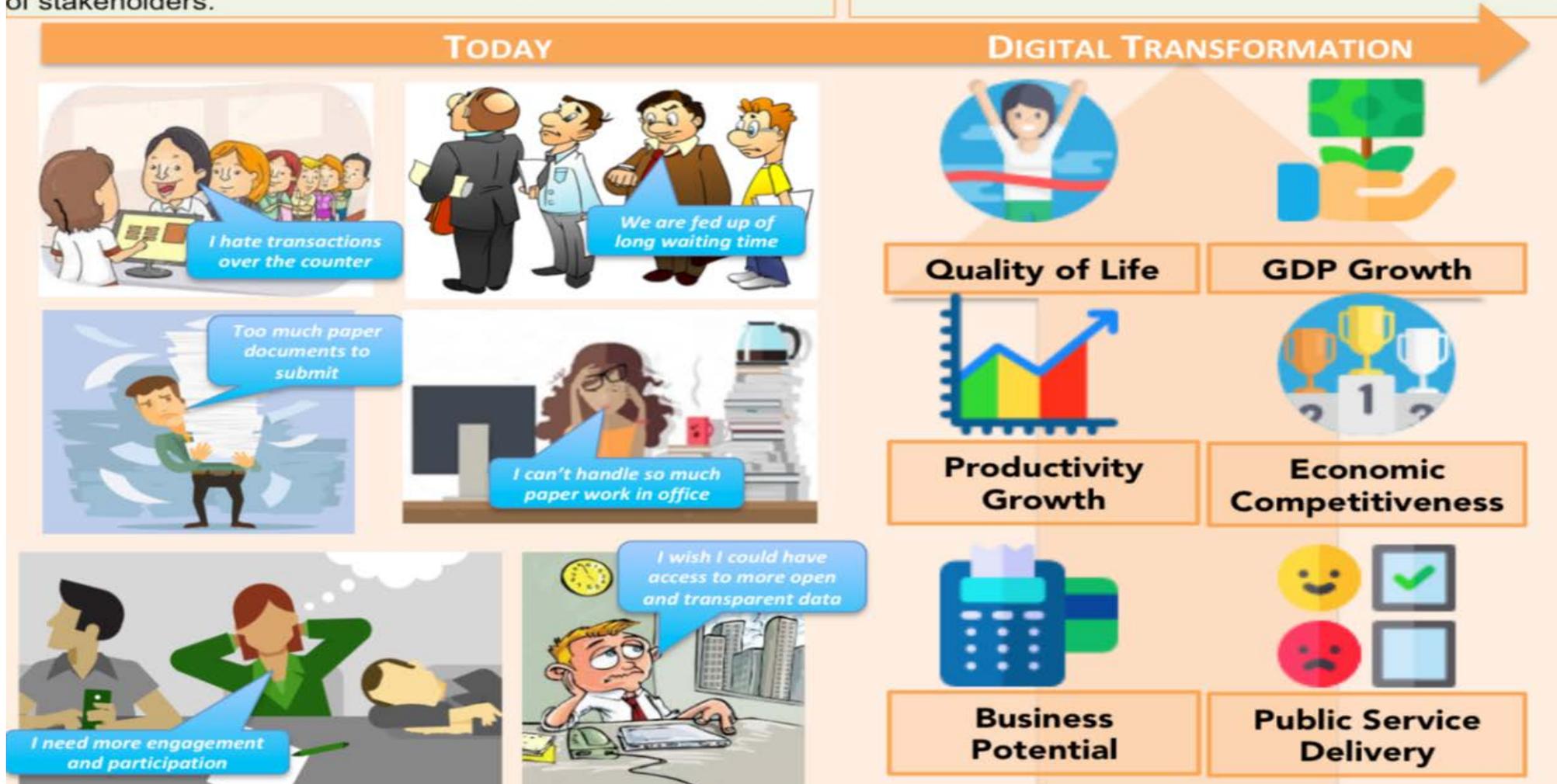
DIGITAL GOVERNMENT TRANSFORMATION STRATEGY 2018 - 2022

Today's Pains

Interaction between citizens, businesses and Government require processes to be re-aligned with evolving digital needs of stakeholders.

Leveraging Digital Revolution

'Digital-by-Default' government services to transform public service delivery.





SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS



SDG Cluster 1: Access to ID, Financial Inclusion, and Mobile Phones

Goal 8.10 Strengthen the capacity of domestic financial institutions to expand access to financial services for all

Goal 16.9 Provide legal identity for all, including birth registration

Goal 17.8 Enhance the use of technology, in particular ICT; Proportion of individuals who: own a mobile telephone; are covered by a mobile network; use the Internet

SDG Cluster 2: Efficient Pricing and Sustainability with Equity

Goal 6.4 Increase water-use efficiency

Goal 11.6 Reduce the adverse environmental impact of cities, including air quality; Mortality rate attributed to household and ambient air pollution

Goal 12.c Rationalize inefficient fossil-fuel subsidies, phase out to reflect environmental impact, and minimize the possible adverse impacts on the poor

Goal 12.2 Achieve the sustainable management and efficient use of natural resources

Goal 15.2 Sustainable management of forests, halt deforestation, restore degraded forests

SDG Cluster 3: Poverty and Social Protection

Goal 1.3 Implement social protection systems for all

Goal 2.1 End hunger and ensure access to safe, nutritious and sufficient food

SDG Cluster 4: Frictionless Payments

Goal 1.4 ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, appropriate new technology and financial services, including microfinance

Goal 3.8 Achieve universal health coverage, including financial risk protection

Goal 10.c Reduce remittance costs to less than 3 per cent

Goal 17.1 Strengthen domestic resource mobilization

SDG Cluster 5: Effective and Accountable Governance

Goal 16.5 Reduce corruption and bribery in all their forms

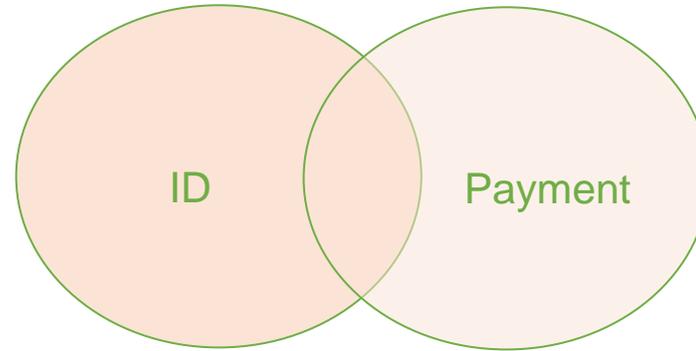
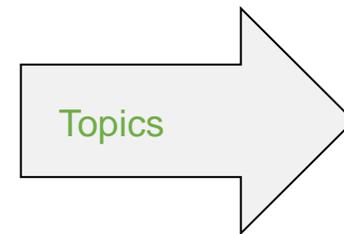
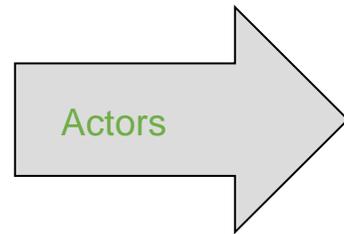
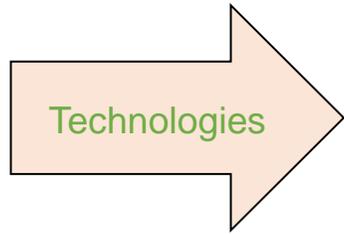
Goal 16.6 Develop effective, accountable and transparent institutions at all levels

SDG Cluster 6: Empowering Women

Goal 5.a Give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources;

Goal 5.b Enhance the use of enabling technology, in particular ICT; to promote the empowerment of women

Using ID and Digitizing Payments to enhance delivery of public services and subsidies



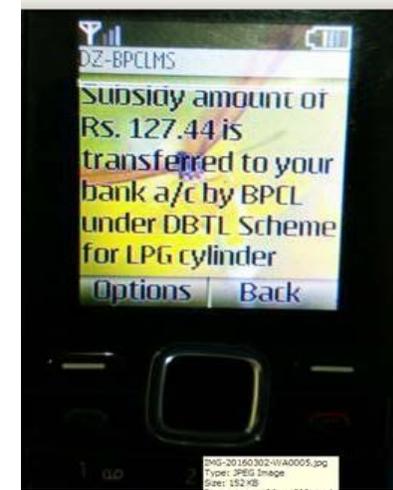
SDG Cluster 1: Access to ID, Financial Inclusion and Mobile Phones



1.2 Billion Aadhaar in 5 yrs
1 Billion Aadhaar auth/month
IndiaStack for digital services

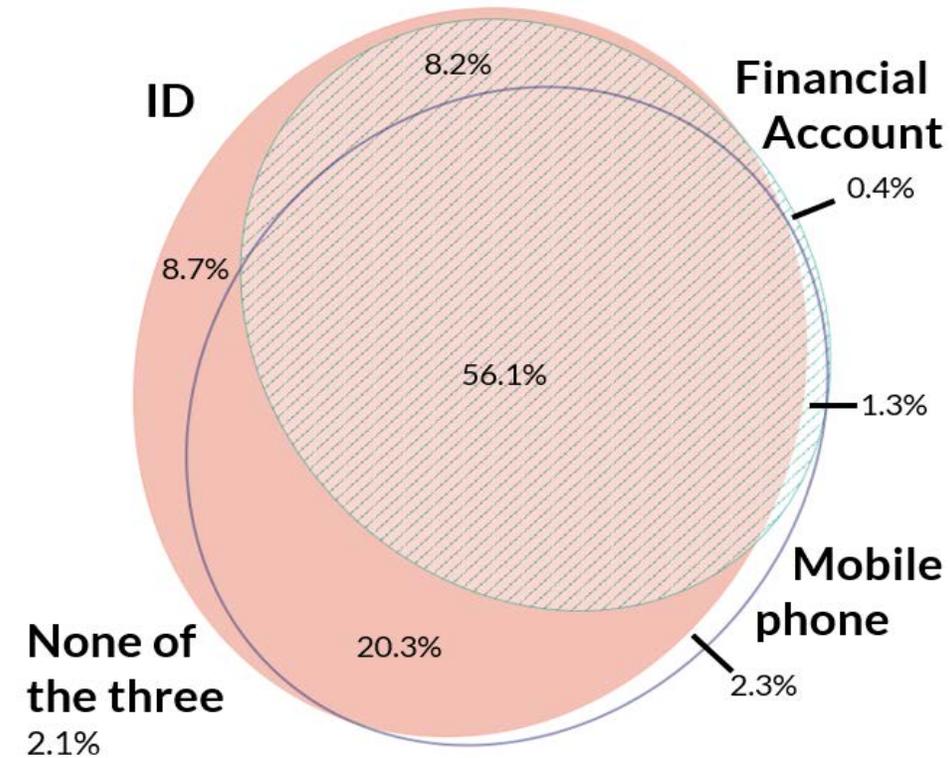
300 M new bank a/c
340 M e-KYC in 3 years
500 M bank a/c linked to Aadhaar

1 Billion mobiles
400 M Smartphones
Unified Payments Interface (UPI)

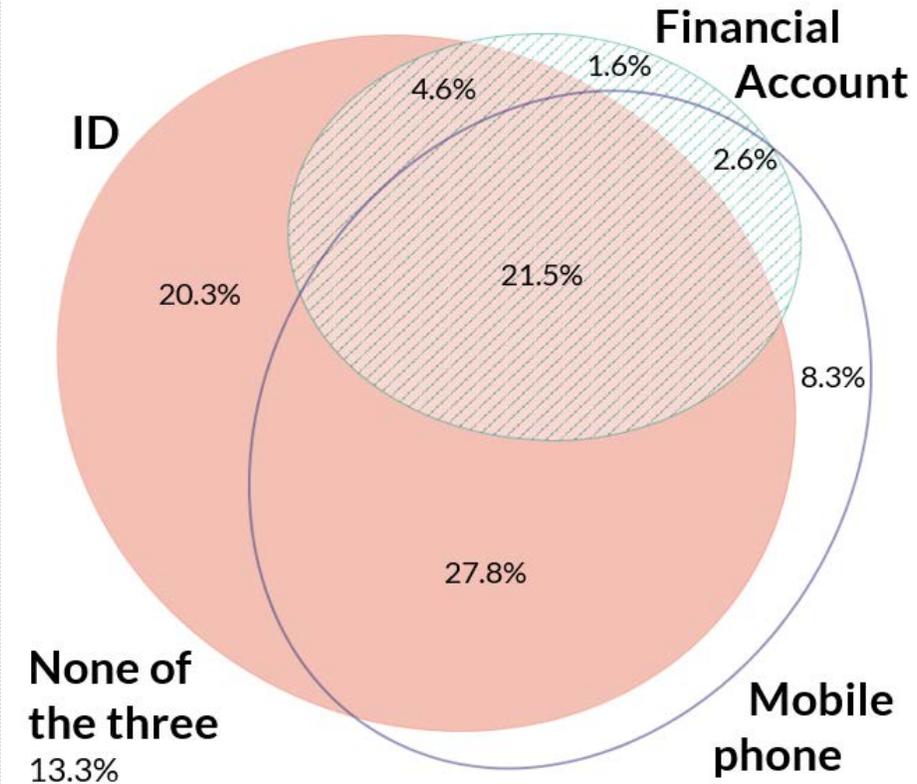


Towards a “Global JAM”: Opportunities and Existing Gaps

*Panel A: Sample includes **all 99 countries** with data for all three JAM components*

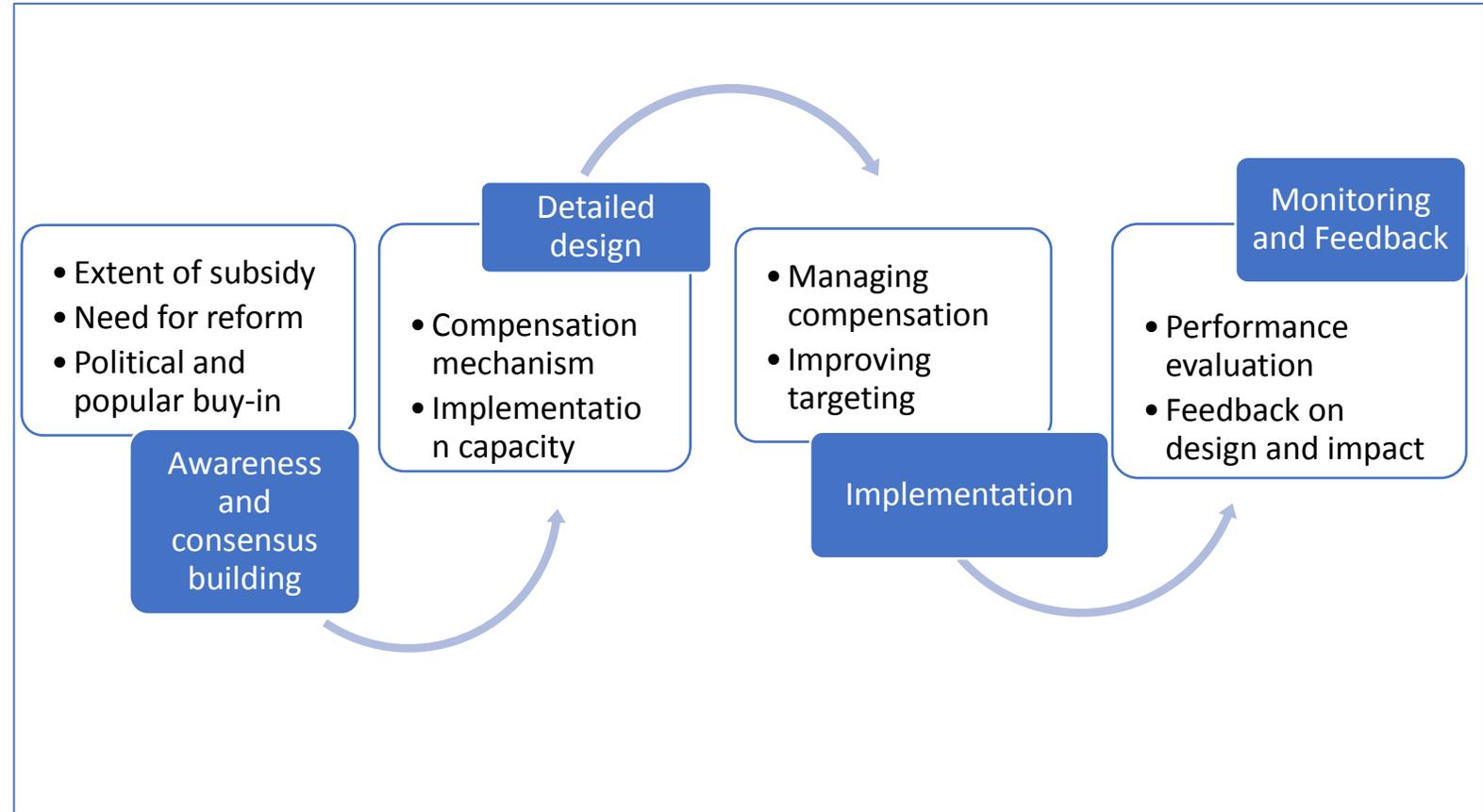
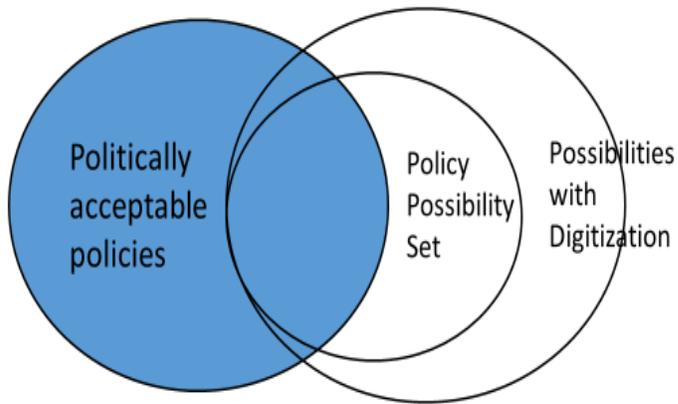


*Panel B: Sample only includes countries in the **lowest tercile** of overall JAM score*



Cluster 2: From Generalized Subsidies to Individual Payments

Acceptable Policies and Possible Policies



Cluster 3: Poverty and Social Protection – Andhra Pradesh Krishna District Field Survey

- **Recognized as an Innovation Hub for Digital Governance**
- Aadhaar is integrated into all public services
- Early focus on smartcards, ePoS devices and connectivity
- Portability of public benefits, first tried out in Krishna district
- Real time tracking and monitoring - first implemented in Krishna, now covers all of Andhra Pradesh state
- Digital delivery: know real-time **Who, Where, When**

Is the hype matched by reality?

We need to study “successes” as well as difficult cases

- Are they replicable?
- Are there lessons for other Indian states and for other countries?



Cluster 3: Poverty and Social Protection – Andhra Pradesh Krishna District Field Survey

- Assessing **beneficiary perception and experience** through quantitative and qualitative household surveys

Public Distribution System (PDS) : Food rations through Aadhaar authentication at PDS shop

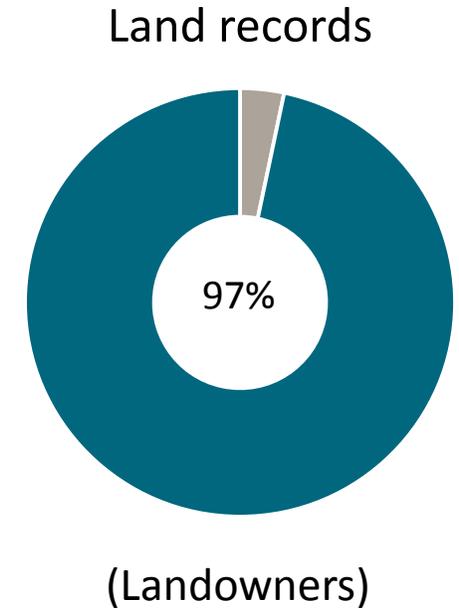
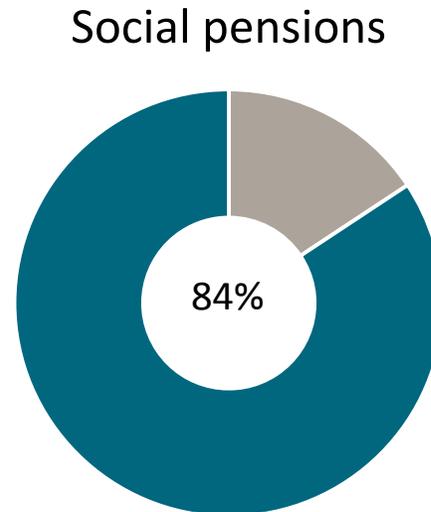
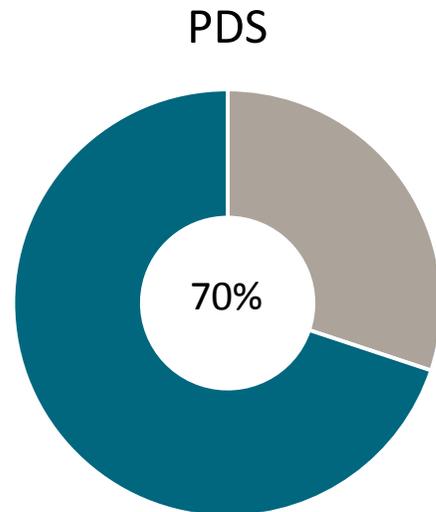
Social pensions: Cash payment from local government office through Aadhaar authentication

Land Records: Digital certificate of landholding linked to Aadhaar

- Understand impact on **service providers** – PDS shop owners and bank correspondents
- Understand functioning of **tracking, monitoring and grievance redressal** system



A Quick Overview: Percentage who think the new systems are better



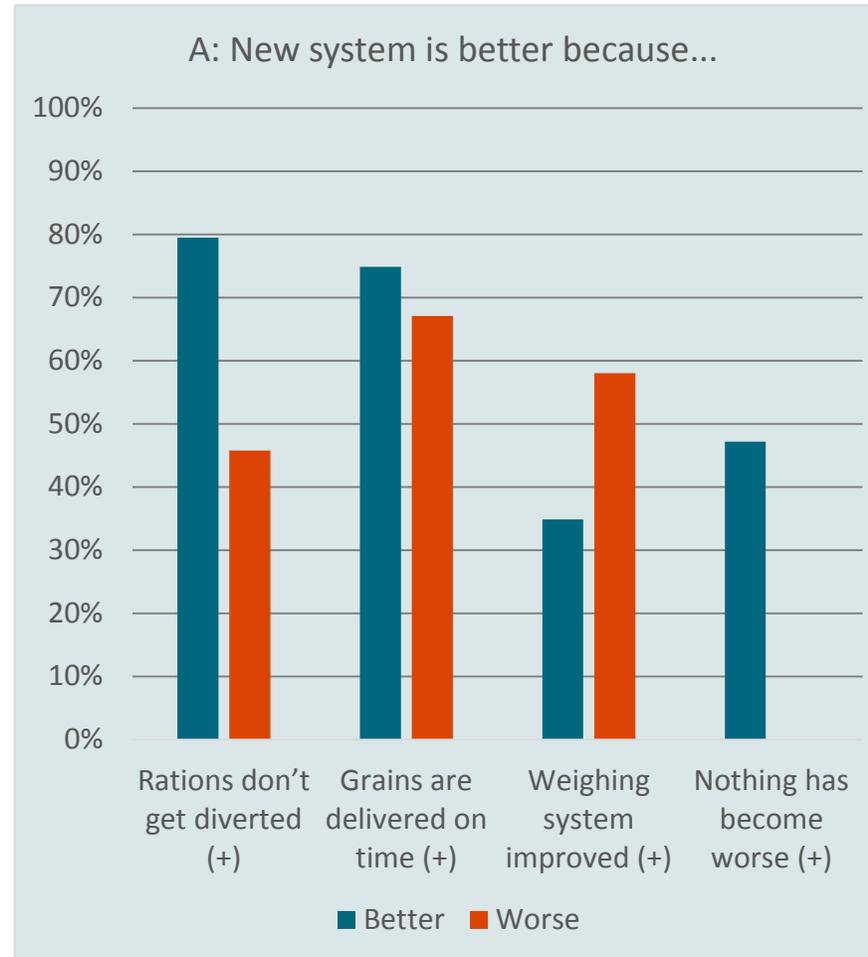
- What do they like and what not like?
- Do preferences relate to who they are? (Status)
- How do preferences relate to experience with system?
- Is portability important?
- Does digital delivery cause exclusion?

Why Better or Worse? Beneficiary Views on Technology Tradeoffs

Reasons for views distinguishing:

- Those who think its better (390)
- Those who think its worse (155)

“My trust in the system has increased since Aadhaar authentication, no one else can take my grains now”- PDS beneficiary



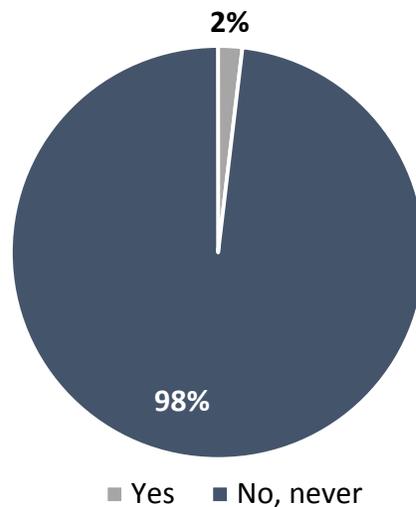
Note: Denominators for each column represent the number of respondents who said that the new system was better (n = 390) or worse (n = 155).

All Biometric systems fail sometimes – but this should not lead to denial of service

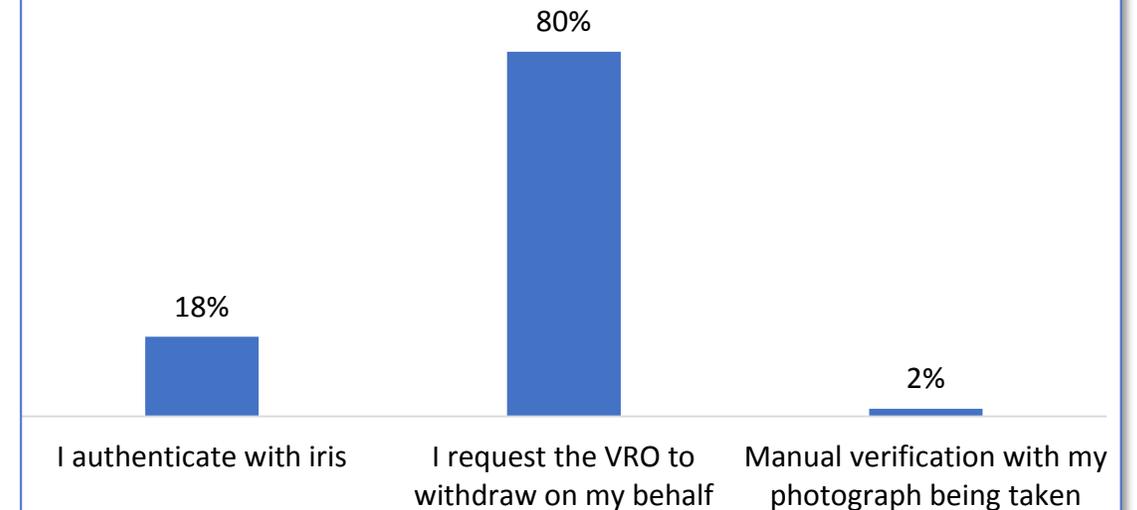
Protocol for managing authentication failures in Andhra Pradesh:

- ✓ In case of fingerprint authentication failure, IRIS is used for authentication. Pension Distribution Officer also takes a picture of beneficiary if IRIS is used
- ✓ In case of IRIS device being unavailable or failure in IRIS authentication, Village Revenue Officer/Pension Distribution Officer authenticates beneficiary on their behalf and hand over pensions
- ✓ In case of frequent finger-print mismatch, beneficiaries are asked to update their biometrics in Aadhaar service centers

Has there been any occasion that you have not received your pension at all because all authentication attempts failed?



What happens when your fingerprint does not match at all?



Cluster 5: Accountable, Real Time Governance

- **Two components:**
 - **Integration and analysis of real-time administrative data**
 - **Real-time customer feedback on service delivery**
- We did not go deeply into the workings of the RTG system and how it might condition behavior
- However, officials were very conscious of it and of their “Happiness Rating” and their goals for improvement
- Grievance system appears to discipline bureaucracy and curb corruption

Notes from the field:

A customer in Agiripialli was not able to authenticate his fingerprints even after multiple attempts. The dealer asked him to visit some other time. Within 10-15 minutes of the incident, she got a call from collectorate office demanding a response as to why did she not use IRIS to authenticate and asked the person to leave without giving grains. She immediately called the person back and gave his grain entitlement after IRIS based authentication.

So Is Krishna the Frontier in Digital Governance?

From what we have seen so far – YES!

- Access, accountability, user choice, user voice
 - Digitized transactions → precise data → potential accountability
 - Accountability reinforced by portability and real-time feedback
 - Combination of better service and fiscal savings
- Better service? Not perfect but people are aware of tradeoffs
- We don't know the full ROI of digital and RTGS investments – but we estimate significant fiscal savings
- Other states will have data but Krishna is ahead in how it is used
- There are still some challenges
 - Authentication experience is still sub-optimal
 - Less outreach from banking system than we expected
 - Preference for cash distribution vis-à-vis direct bank transfer
 - Non-digital exclusion: eligibility for benefits; tenant farmers and land records

Final Thoughts – Getting Policy Design and Technology Right

	Policy Design	Technology
Inclusion	<ul style="list-style-type: none"> • ‘No person left behind’ principle (SDG Framing) • Address last-mile access issues and vulnerable groups 	<ul style="list-style-type: none"> • ‘Bottom of digital pyramid’ approach • Ability to reach last mile
Accountability	<ul style="list-style-type: none"> • Identify vulnerable people and processes to monitor • Integrate clear human failsafe option and processes in case of failure of technology including backup alternatives 	<ul style="list-style-type: none"> • Use administrative data in real time and monitor service delivery to identify cases of exclusion • Link to performance measures, including from beneficiary assessments
Choice	<ul style="list-style-type: none"> • Offer multiple agencies/channels to access benefits (portability) • Restructure incentives to encourage service and to promote competition between providers 	<ul style="list-style-type: none"> • Use authentication capability of ID system to render service entitlements fully portable • Develop option for personalized choice over in-kind to cash transition
Voice	<ul style="list-style-type: none"> • Integrate digital feedback loop (both implementing agency and beneficiary) as well as user surveys of perception and experience 	<ul style="list-style-type: none"> • Personalized feedback systems including text messages, robocalls, IVRS etc. along with human interface
Externalities	<ul style="list-style-type: none"> • Identify desirable externalities and combinations, for example women’s empowerment and financial inclusion • Design intervention to favor such outcomes in addition to efficiency and inclusion 	<ul style="list-style-type: none"> • Assess technology access, capabilities and gaps in terms of externality objective • Explore special measures to complement technology, for example, financial literacy classes for women

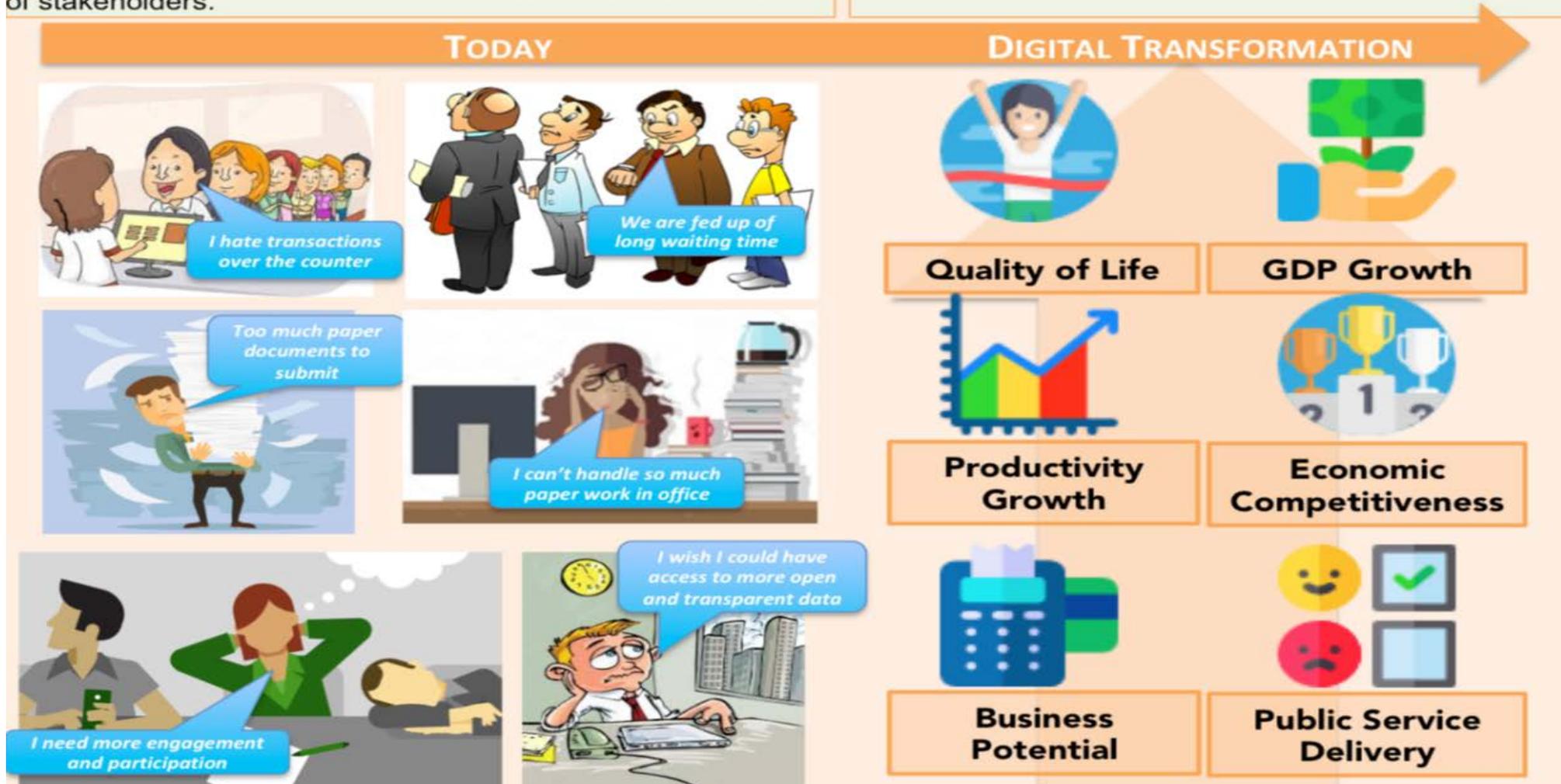
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Thank You!!!

<https://www.cgdev.org/topics/digital-dividends>