

Global Observatory for Water and Peace
Strategic Foresight Discussion Document

Digital Transformation

Challenges and Opportunities for West African River Basin Development Organisations



With the support of:



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra



UNIVERSITÉ
DE GENÈVE

First Virtual Think Tank Roundtable – July 2, 2020
Christophe Bösch, Strategic Advisor to the Geneva Water Hub

Water, Peace and Digitalisation

- **The world needs to fundamentally rethink its global approach to water – as a matter of survival** (Global High Level Panel on Water & Peace, 2017)
 - *Unrealized potential of River Basin Organisations (particularly those with an Integrated Development mandate) and their vital role post-covid-19.*
- **Urgent need for improved digital cooperation to help achieve the SDGs** (UN Secretary General’s High Level Panel on Digital Cooperation, 2019)
 - *The pandemic is accelerating digital transformation, but growing opportunities are paralleled by stark abuses and unintended consequences.*
- Digitalisation can be a key instrument to **strengthen existing river basin development organisations (RBDOs) and to create innovative ones in new basins/watersheds, leveraging the “network effect”**.

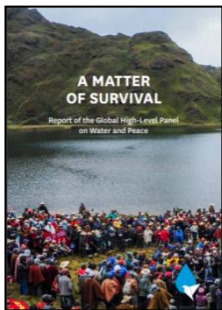
- Digitalisation can help **integrate the water sector's many organisational siloes** and promote a systems approach:
 - **Leveraging the interconnectedness of water** across sectors, borders, and across the urban-rural divide
 - **Fostering the emergence of new models of territorial governance of water** to more effectively manage 21st century mega-risks, prevent local conflicts and systemic crises (polycentrism, subsidiarity, empowering communities and the local private sector...).
- In fact, the mandate of Integrated RBDOs such as OMVG or OMVS already **has the attributes of a digital platform**
 - With water acting as multi-actor, intersectoral connector and a catalyst of development – **an instrument of peace and prosperity.**

- RBDs could thus be a **developmental ground for digitalisation, while managing risks** such as cybersecurity (next roundtable). For instance :
 - Digitalisation of **river basin strategic/master plans** and of their joint investment instruments.
 - Multi-stakeholder **investment and financing** platforms (next roundtable).
 - New ways to **promote local actor participation in managing and developing the basin** such as social networks (next roundtable).
 - **Digital tools to facilitate integration** in a basin, to reduce inequalities in water security, strengthen transparency and leverage intersectoral, territorial and transboundary linkages (next session 2).
 - **Innovations in remote sensing and crowdsourcing** coupled with digital tools to transform water governance, financing and diplomacy (next session 4).

Digitalisation: Technical or Transformational?

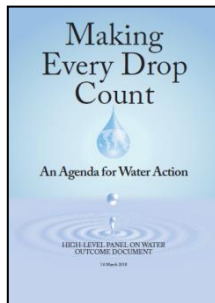
- 3 recent Global Panels **have not linked water and digitalisation**, though they all highlight data for decision/policy-making and peace (see also Geneva Coalition for Water Data & Peace)
- But we know responses to 21st century water challenges have to be multi-sectoral, circular, across boundaries and across generations: ***digitalisation is much more than just a technical issue – it can help break silos and be transformational.***

Water & Peace (2017)



ZERO reference to digital(isation)

UN-WB Water (2018)



ZERO reference to digital(isation)

UN SG Digital Cooperation (2019)



ZERO reference to the water sector

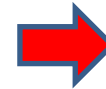
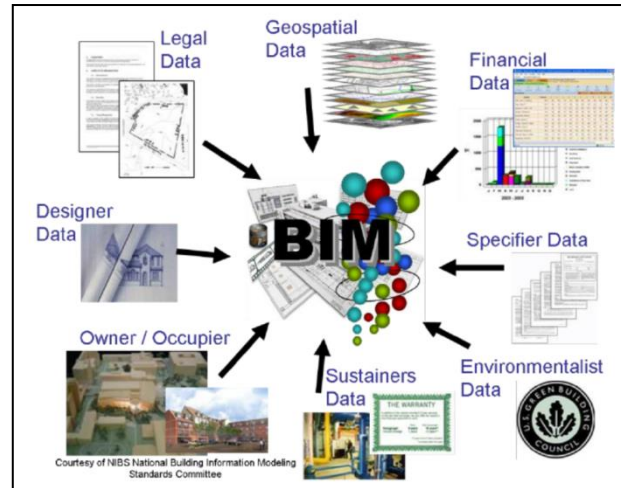
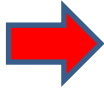
Covid-19, Governance and Digitalisation:

What the water sector could learn from Taiwan

- Central ingredients of Taiwan's success (source: Foreign Policy magazine, June 2020):
 - efficient coordination across the public and private sectors
 - coupled with innovative deployment of advanced technology (AI, big data)
- This unique ability to integrate data across sectors and creatively apply technology helped Taiwan to withstand the first wave of the pandemic.
- ***Relevant to the water sector, from rural systems to river basin agencies, to address the immense socio-economic, climate, health and population challenges of the 21st century.***

Digital Master and Joint Investment Plans: Can the Building Sector Inspire Integrated RBDOs?

- Building Information Modeling (BIM) has now become a «standard» for architects and engineers - for better interdisciplinary and intersectoral collaboration
- A similar approach could help to further **integrate and increase RBDOs' resilience**



Digital Master and Joint Investment Plans

Flexible

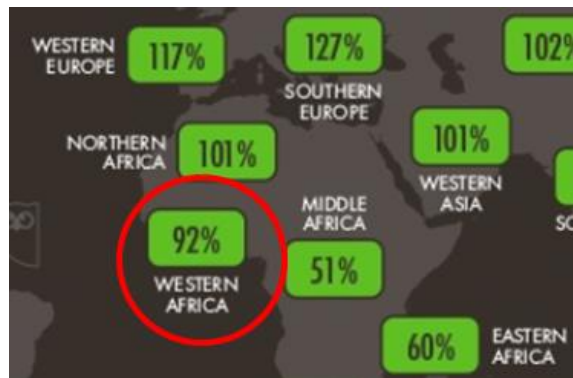
*Adaptable (to political,
climate, health crises...)*

*To facilitate multi-actor
participation*

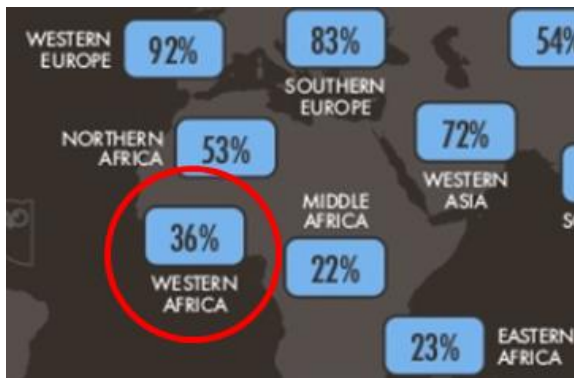
Fast Growing Connectivity in West Africa

- Future OMVG-OMVS-WAPP regional interconnection (energy and optic fiber)
- But major gaps remain (between countries, urban-rural, gender, generational...) and many constraints (digital literacy, cost, local infrastructure, etc.)

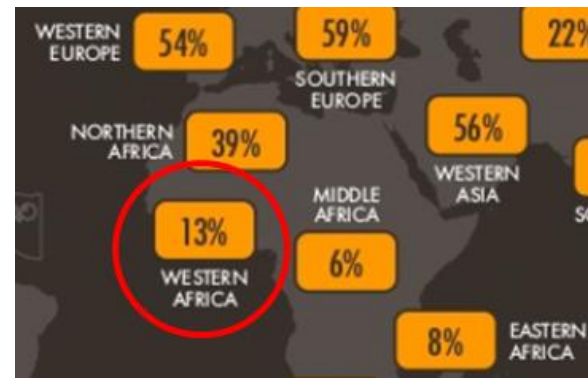
Mobile Connectivity



Internet Penetration









Social Media Use



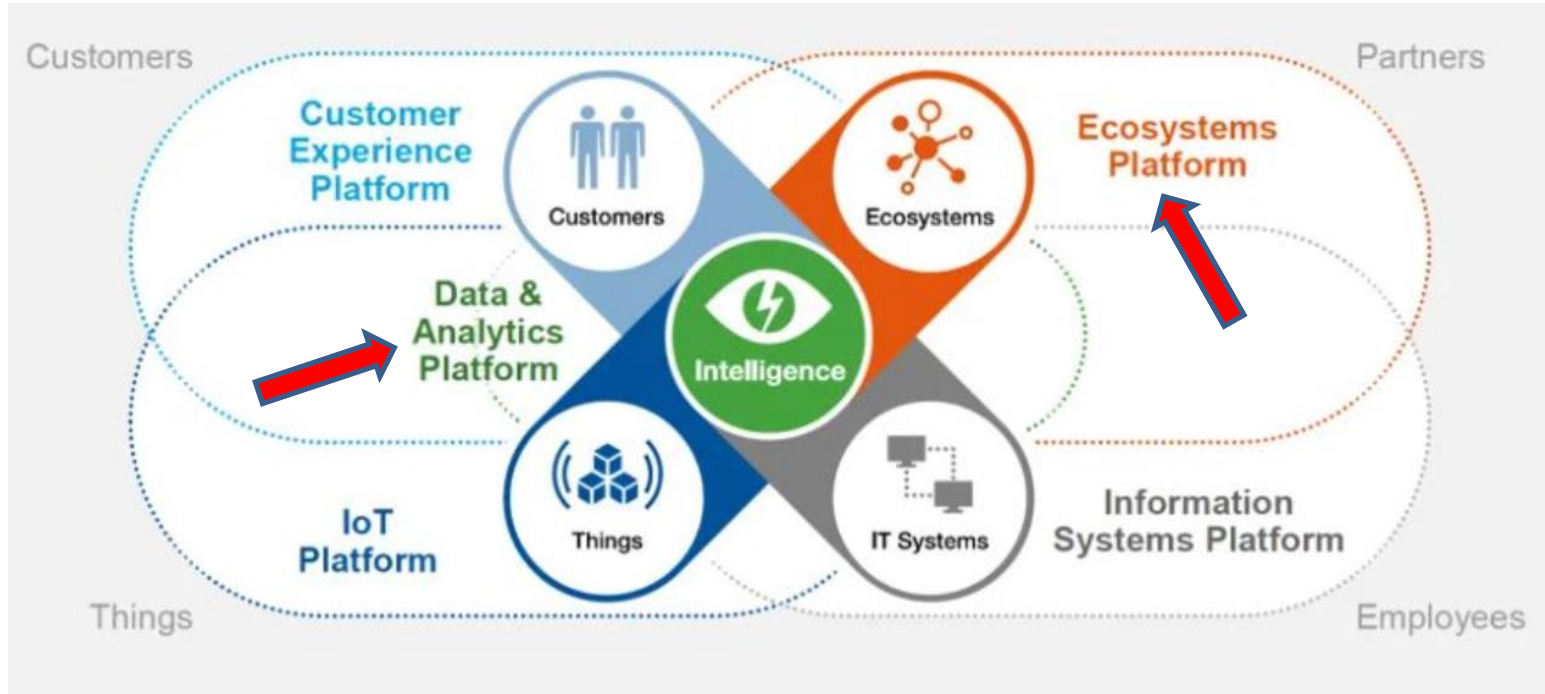
Source: DATAREPORTAL, January 2020

Digital Stats in OMVG/OMVS countries

	Mobile subscription	Broadband	Internet Users		Active Social Media users	
	2020	2020	2016	2020	2016	2020
Gambia 	136%	38%	18%	20%	9%	16%
Guinea 	102%	36%	6%	20%	6%	15%
Guinea-Bissau 	79%	36%	4%	13%	4%	13%
Mali 	108%	28%	12%	24%	7%	9%
Mauritania 	99%	56%	11%	30%	6%	17%
Senegal 	109%	51%	46%	46%	11%	21%
WORLD			59%		49%	

Source: DATAREPORTAL, January 2020

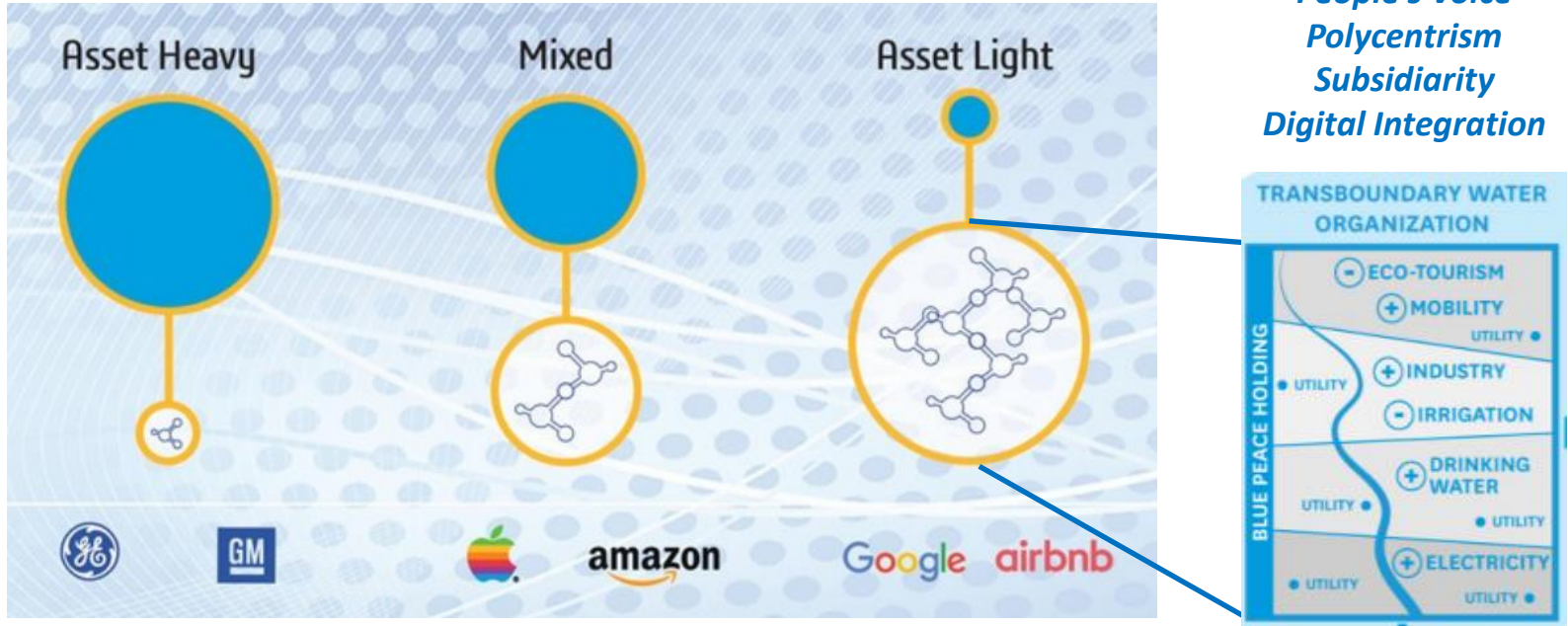
Towards a Digital Platform for an Integrated River Basin Development Organisation (West African Model)



Source: Organizational Design – Thoughts on how to build smarter organizations, 2020

The RBDO Models for the 21st Century

Assets/Value Chains vs. Platform Ecosystems ?



Source: Global Platform Survey, 2016

Summary - Key Messages

1. Digitalisation can be **transformational** (not just technical) and a **key enabler** to make water an instrument of peace and prosperity.
2. To this end, digitalisation can serve as a tool of:
 - **Integration** across sectoral and political boundaries
 - **Inclusiveness** across socio-economic and other divides
3. With growing opportunities are **risks** (digital divides, cybersecurity...) **that must be anticipated and managed.**