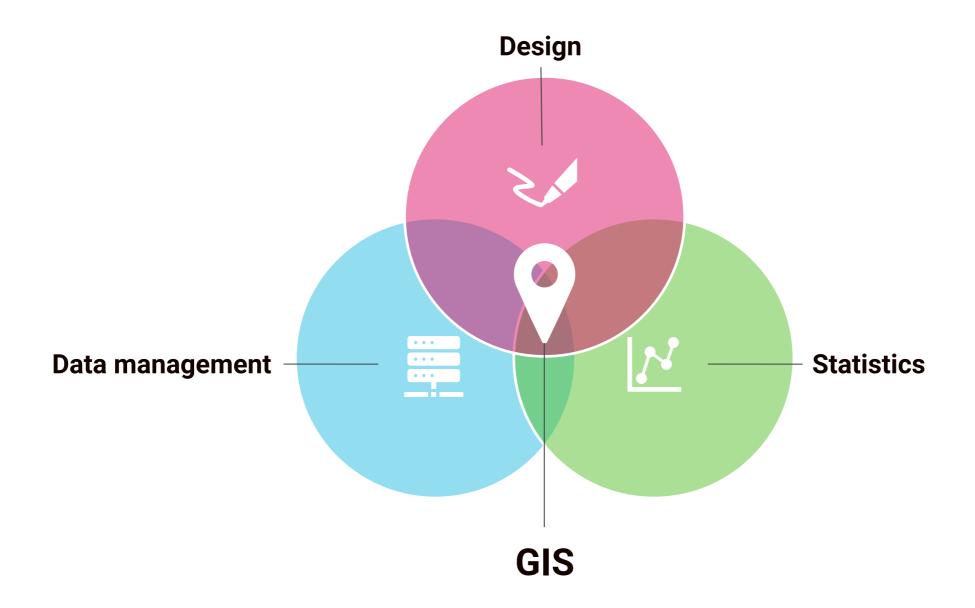
Next-Generation UN: Data Strategy and Beyond

Kersten Jauer, May 2022





Why GIS is beautiful: The intersection of data management, statistics, and design



UNITED NATIONS

,



Strategic context

Our Common Agenda: Breakdown or breakthrough to a greener, better, safer future





"The choices we make, or fail to make, today could result in further breakdown, or a breakthrough to a greener, better, safer future.

The choice is ours to make."



Download Report

Next phase of UN reform: New capabilities, built on better structures, for more impact



Structural Change

Development, peace and security, and management structural UN reforms

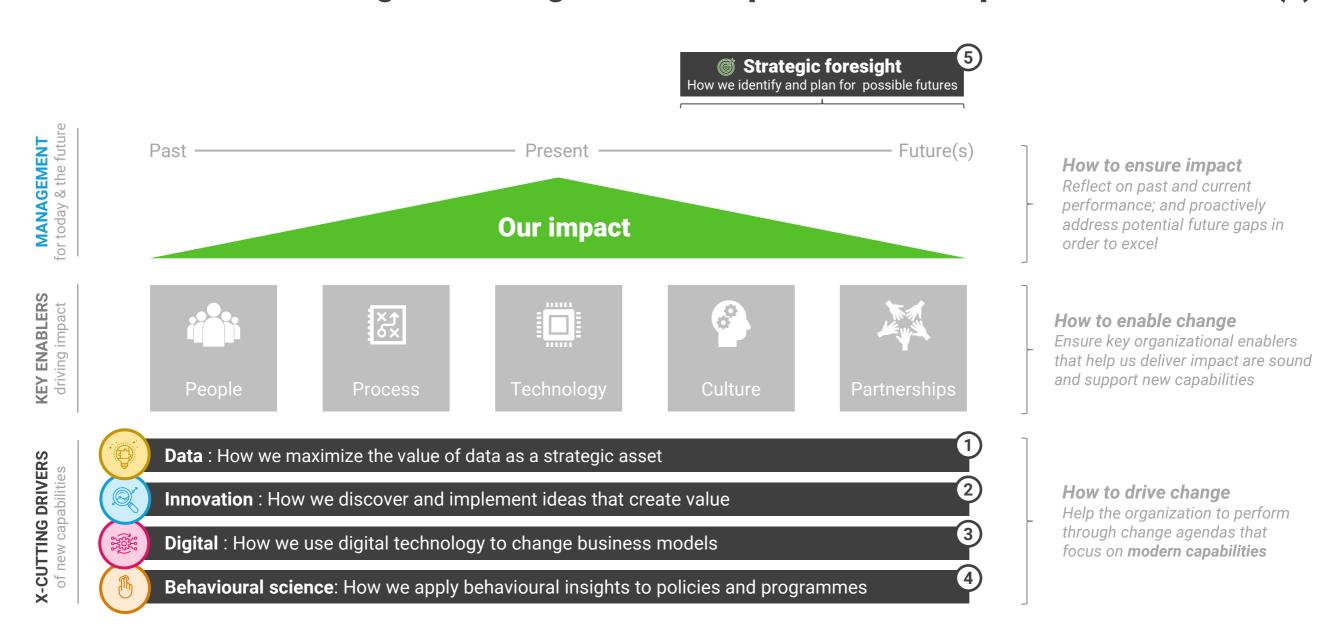
UN 2.0 Capabilities

Fostering modern UN capabilities for the 21st century

UN Family Impact

More impact now and in future(s)

UN 2.0: 'Quintet of Change' of next-generation capabilities for impact now & in future(s)



Data Strategy

Big picture overview

UNITED NATIONS (Control of the control of the contr

Data Strategy: Driving change to unlock the UN family's full data potential





OUR VISION

"Build a whole-of-UN **ecosystem** that unlocks our full data potential:

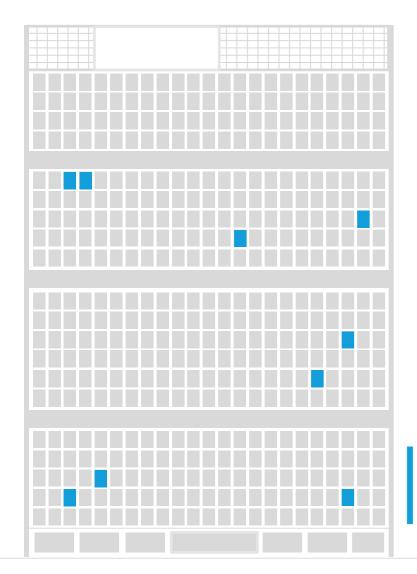
For better decisions and stronger support to people and planet—in the moments that matter most."





location data

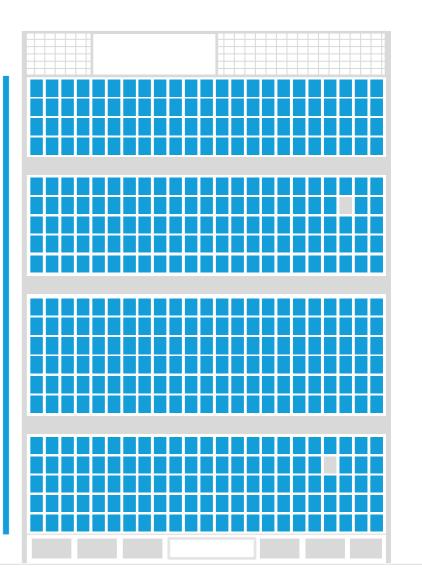
Why? In the past, data was an isolated concern. Now it permeates everything we do.



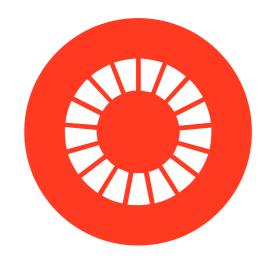
Today
Data is integral to the work
of all teams across the UN

In the past

Data was a mainly a concern for IT and statistics teams



Why? Decade of Action for SDGs: Data, insights, and ecosystems for better investments



Trillions are needed to reach the Sustainable Development Goals: >\$4.2trn / year



Better data is critical for navigating complex risks and choices ahead:

>50% of SDG data missing

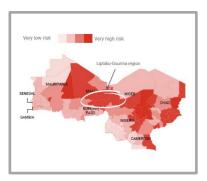


Stronger data ecosystems are key to guiding investments:

> people x data connect

location data

Data is a key to: What happened, why it happened, what happens next, how to respond



Better needs targeting w/ sub-national risk models

Multi-factor risk models help identify at-risk areas at higher resolutions and design more effective responses.

Example: INFORM Sub-National



Faster response w/ predictive [food security] models

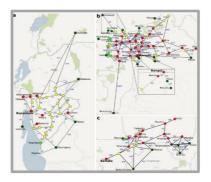
Al helps WFP predict food security months earlier w/ 90% accuracy in 90 countries, while only present in 45 countries.

Example: World Food Programme



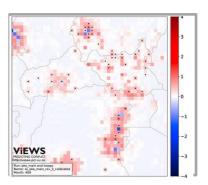
Earlier alerting with satellite imagery analysis

Al models can be trained to recognize patterns, incl. camp formations, and other geographic phenomena. Example: UN Global Pulse, Pulse Satellite



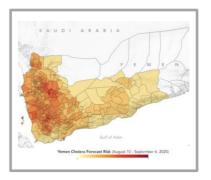
Better simulations of displacement and refugee flows

Modelling toolkits forecast destinations of forcibly displaced people and the effects of policy decisions Example: FLEE, Horizon 2020



More tailored peacekeeping deployments

Incident and patrol data can help determine what capabilities are needed where / when + impact Example: ViEWS (Hultman, Leis, Nilsson)



Better disease prevention and response

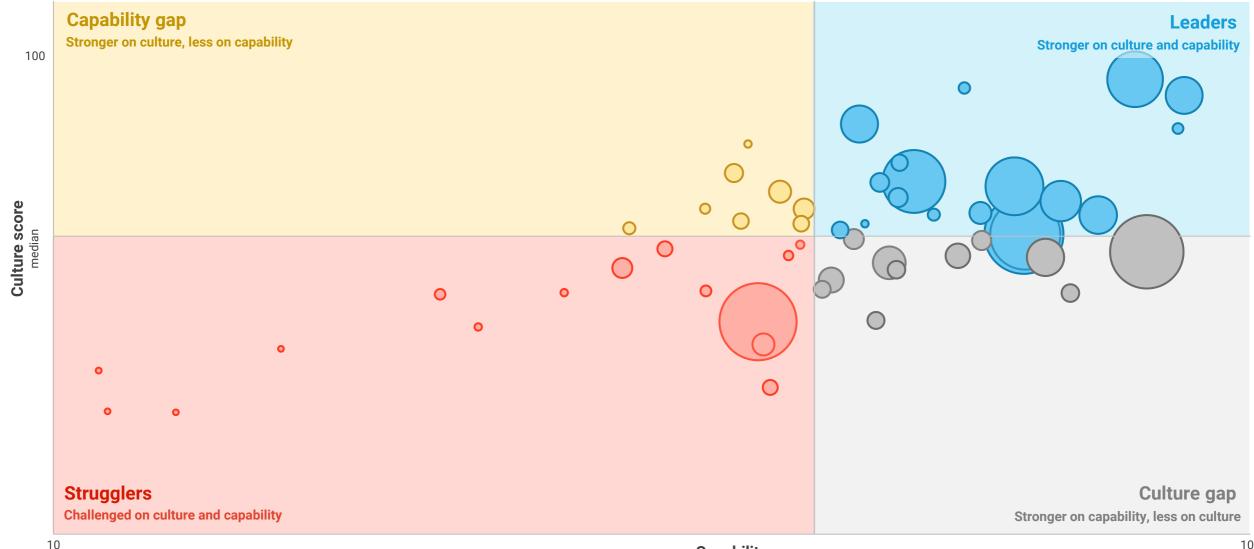
Satellite + ground data predicting spread of cholera in Yemen helps prevent >2m cases.

Example: UN OCHA

JANUARY 2022, UN EOSG

Wide dispersion: UN family innovation, data and digital culture & capability

2020 innovation, data and digital score map of entities based on capability and culture scores (bubble size indicates staff numbers)



Source: 2020 survey of 52 UN System entities

Capability score median

100



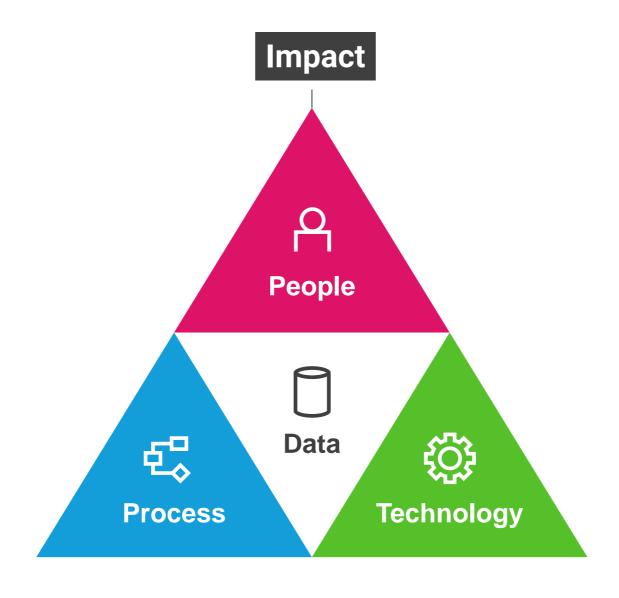


It is not about adding resources. It's about evolving how we use resources we have.



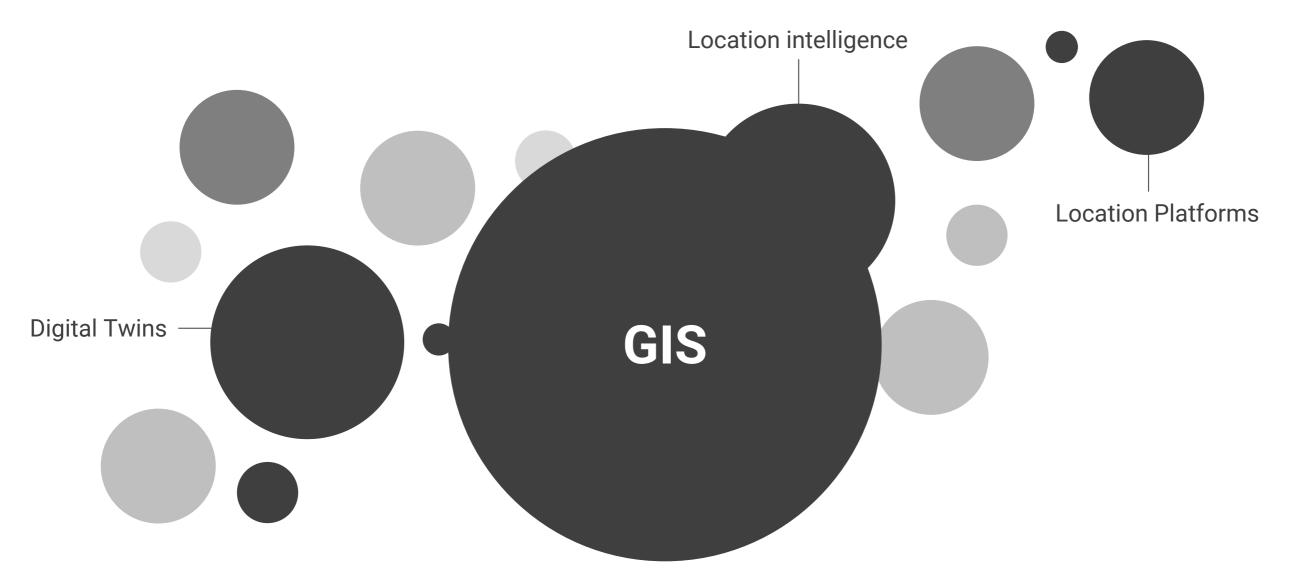
location data

It's not a IT problem: Transformin how data x people, process, tech connect for impact



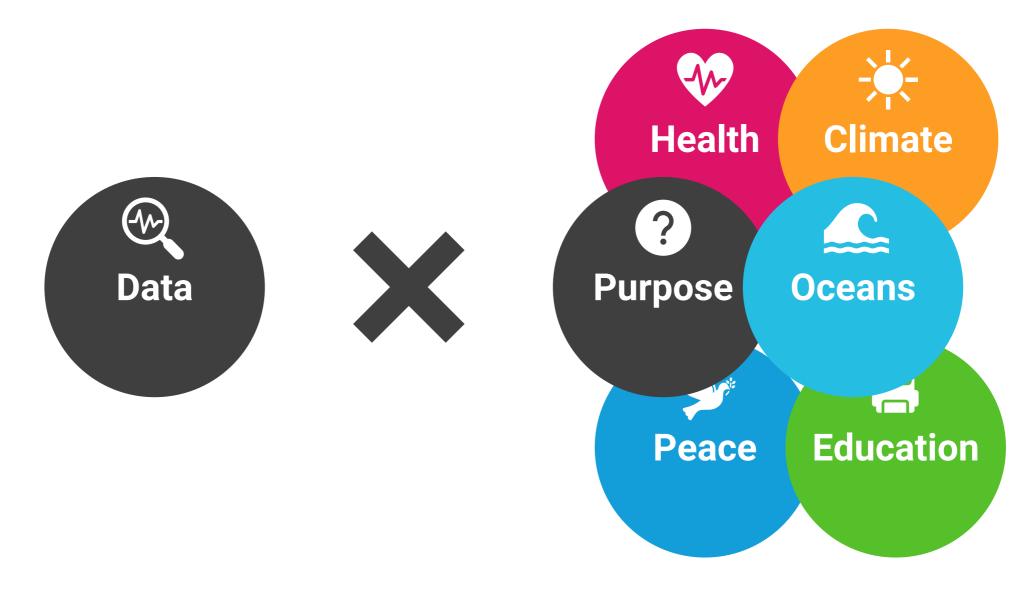
Source: Gartner

From one to many: More stratified and widely dispersed capabilities - most non-expert

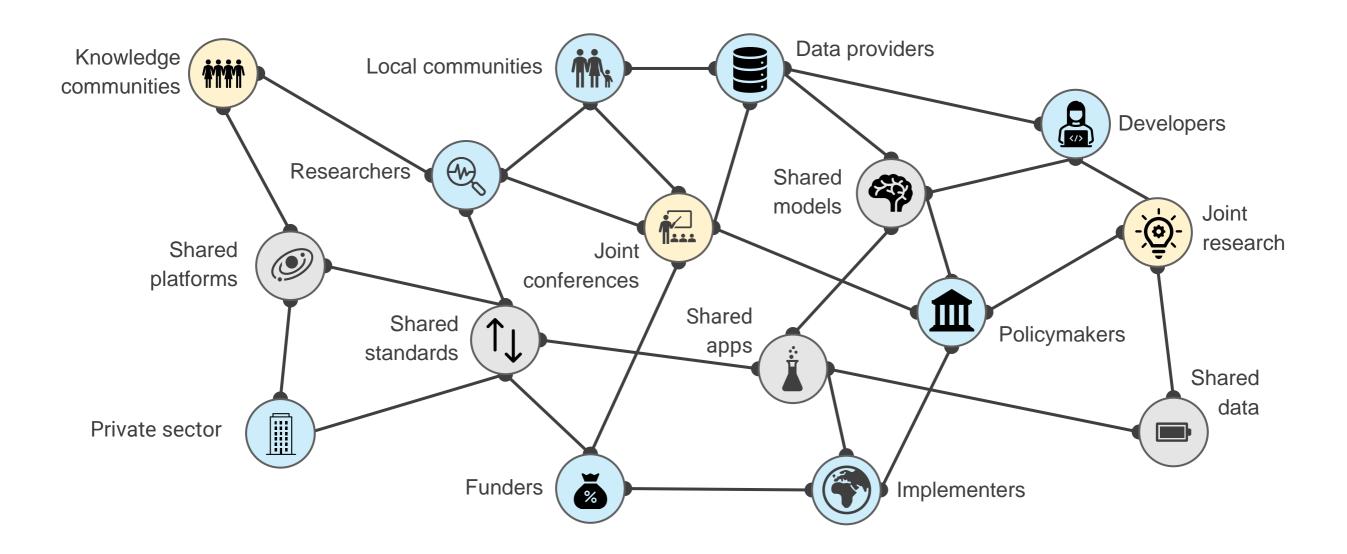


location data

Never for its own sake: It's about 'data with purpose'

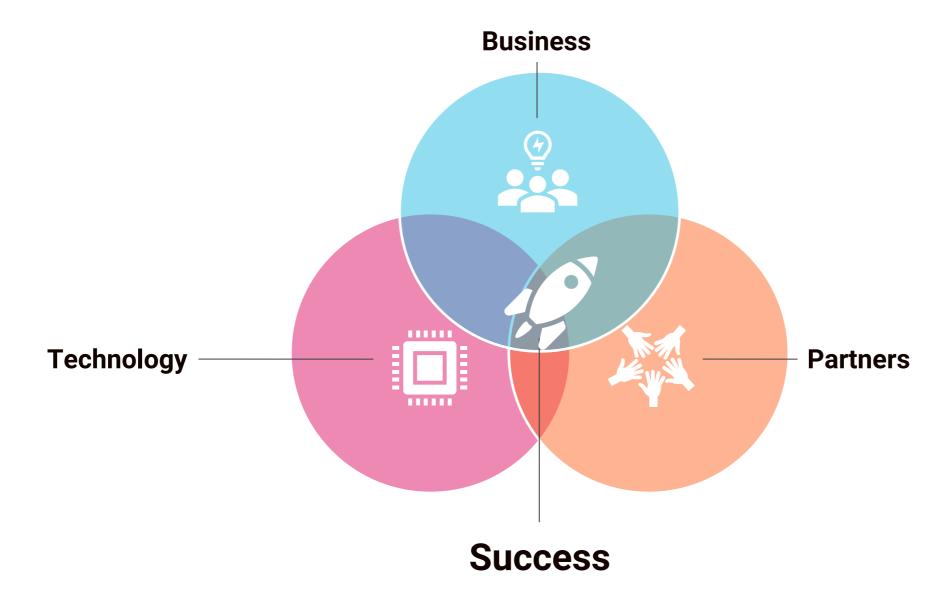


Ecosystems matter: Diverse partners unite around common purpose & rules for collab.

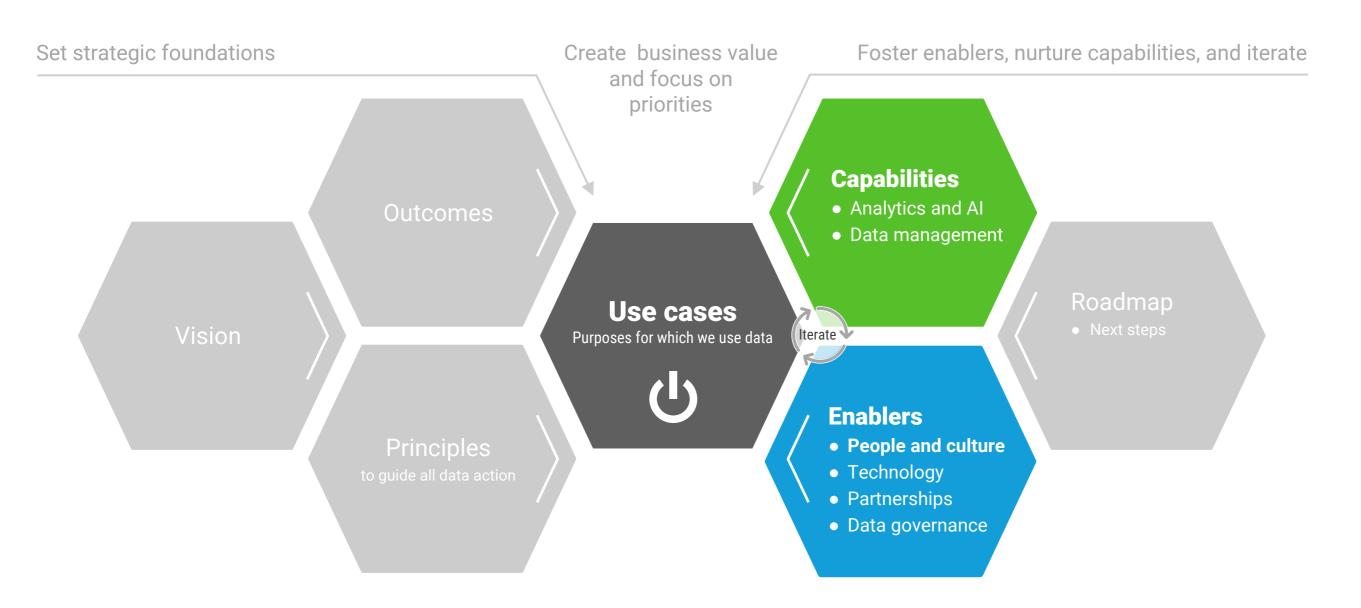


JULY 2021

To succeed, the data-driven transformation needs business leads and partners



In our strategy, we take a use case centric approach to evolve capabilities and enablers



How far we've come

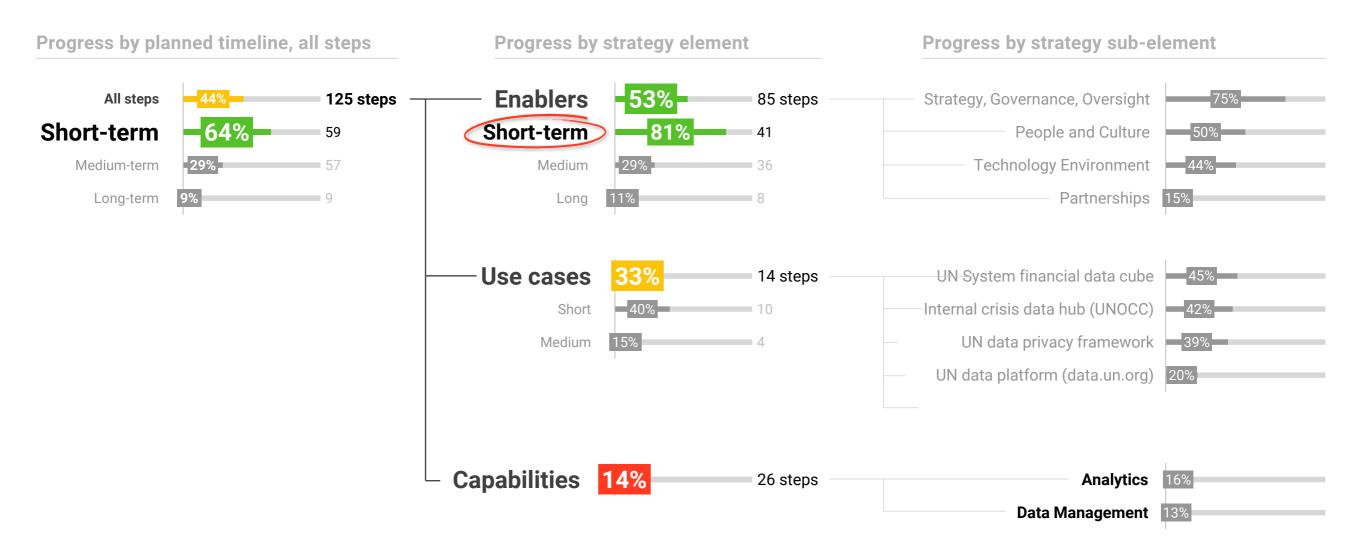
Big picture overview

Short-term

Medium-term

Long-term

Of 125 steps, 64% of 'short-term' done: Key enablers at 81%; capabilities a 'long game'



Not counting intangibles, we are on track to unlock 10x of initial strategy investment

Only includes efforts directly attributable to Data Strategy Support Team. Total value unlocked is higher when including efforts of other teams across the UN Secretariat or broader UN family.

Initial investment: \$1.5m over 24 months

- Funding for strategy team and its work (see slides)
- Funding for initial training efforts
- Funding for use case support

~\$16.7m unlocked > 10x initial investment

\$1.5m **\$1**.

~\$15m for 2022 (and \$15-25m / yr. for at least 5 years)

Unlocked: \$1.7m in last 18 months

- Pro-bono support for systemic use cases
- Pro-bono and co-investments for training
- Internal matrix team efforts in human resources, policy, tech.
- External secondments to catalyze UN know-how

Unlocked: ~\$15m for next 12 months

- New multilateral data financing instruments
- Pro-bono and co-investments in training
- Secondments to catalyze know-how

What you can build on —

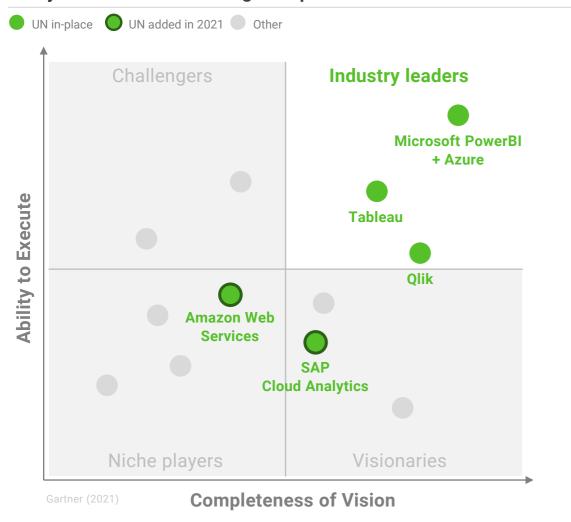
Progress

Challenges

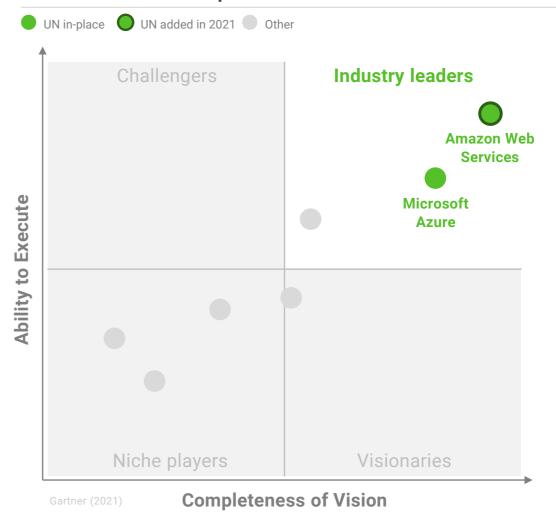
How to support

Technology: Diverse and leading analytics + cloud platforms in place & being fortified

Analytics & business intelligence platforms in the UN Secretariat



Cloud infrastructure & platform services in the UN Secretariat



Microsoft Azure / Amazon Web Services, for example, each offer 200+ analytics capabilities for data sourcing, processing, management, visualization.

New job data profiles: Better business 'link-up' and more specialization



- Data Analysts are responsible for collaborating with programme and operations colleagues on data and analytics products, incl. research, reports, visualizations, presentations, dashboards, ...
- Profiles available P-1 to P-5, G-4 to G-7,
 NO-A to NO-D and FS in preparation



- Data Engineers are responsible for supporting everyone with data preparation, speeding up the creation of curated trusted data pipelines and their integration.
- Profiles available P-1 to P-5, G-4 to G-7, NO-A to NO-D and FS in preparation



- Data Scientists are responsible for extracting deep insight from data and using complex models, employing statistics, algorithms, artificial intelligence and visualization methods.
- Profiles available P-1 to P-5, G-4 to G-7, NO-A to NO-D and FS in preparation

Recruiting new skills is critical, but not picking up: Less than 1 in 5 UN entities on target

Current / target staff in data roles

113 entities tracked: All UN Secretariat hires since Jan '21...

Indicators for data-related hires





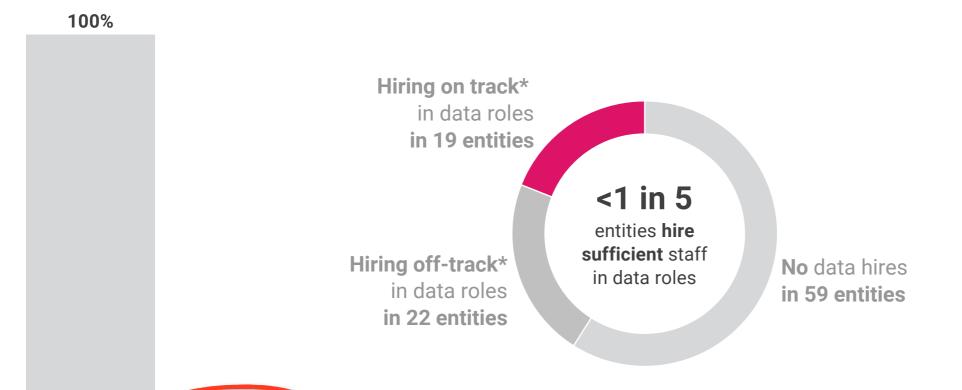


^{*} e.g. DGACM, DOS, OHCHR, OSAA, UNOG, UNON

Indicator on non-data job openings



20% of non-data jobs... include data terms



5%

10% Target

Current staff in data-related roles

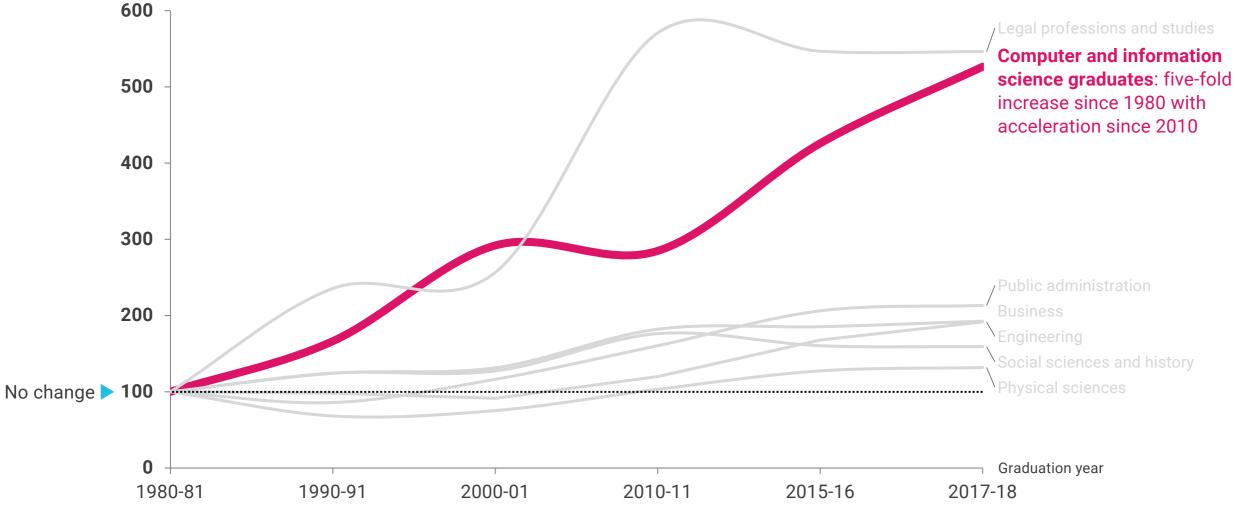
by 2026

Source: Workforce planning dashboard as of November 2021

^{*} on-track where data roles are more than 5% of total hires, * off-track where data roles are less than 5% of total hires

Reconsider entry levels, as recent graduates bring data skills we need

Relative number of graduates by subject in the US (1980 = 100)

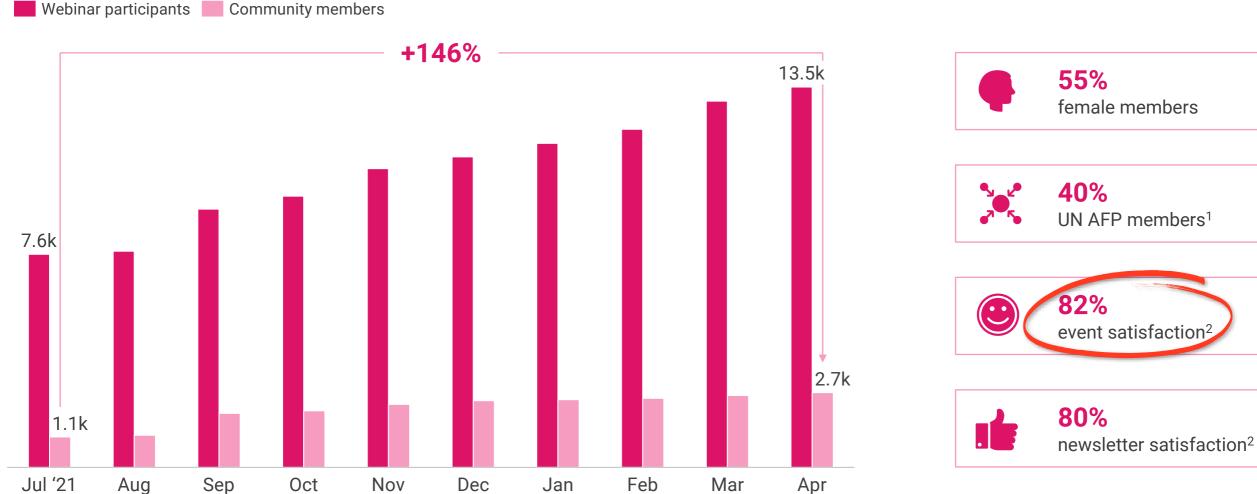


Source: Inputs in response to CDC memo of August 2020

Staff engagement strong: 2.7k data community members (+146%) & 13k at events

Cumulative members in knowledge-sharing community and event participation over past 6 months

Community engagement indicators

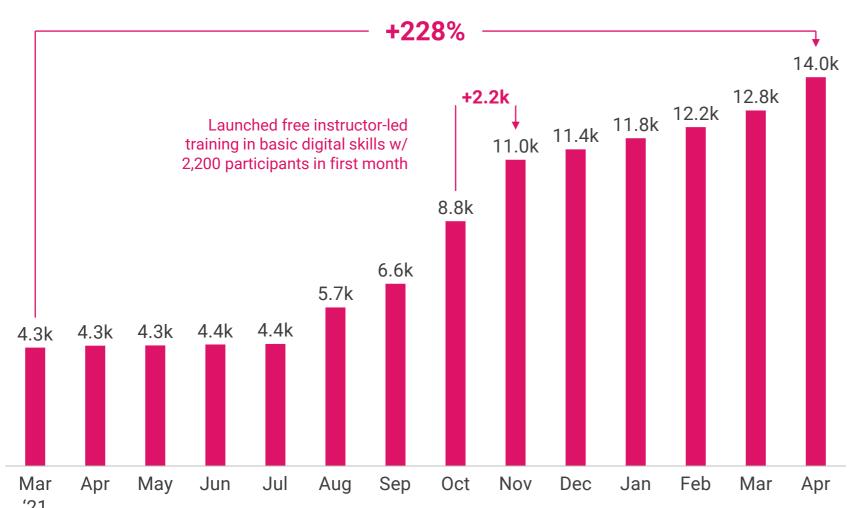


55% female members UN AFP members¹ event satisfaction 80%

Source: Webinar participants tracker and community subscription form as of 6 JAN 2022; 1) UN AFPs = UN Agencies, Funds and Programmes, 2) satisfaction rated as 'useful' or 'very useful'

Training scalable: 14k colleagues participate so far, boost from free basic offer for all

Cumulative training participants since launch



Community demography and skills







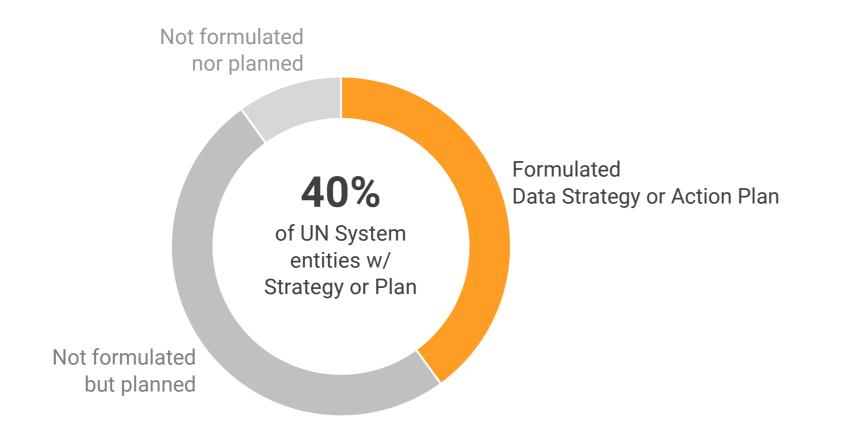
Basic training must be priority

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Strategies incomplete: Only 40% of UN System prepared for data-driven transformation

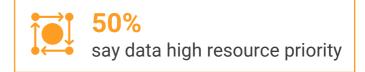
Status of data strategy development across 52 UN System entities as per the latest mapping

Other 'change preparedness' indicators









Source: 2020 CEB UN System Data, Digital, and Innovation Capacity Mapping

Partnerships: New financing facilities to support stronger data ecosystems

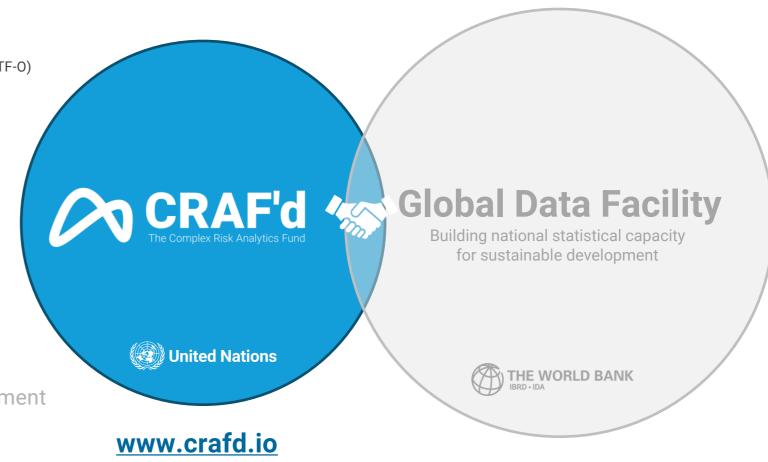
Complex Risk Analytics Fund (CRAF'd)

UN-hosted multilateral financing instrument (MPTF-0)

- Designed and launched in 2021; up in 2022
- Supports open risk data & ecosystems for
 - Crisis prevention
 - Anticipatory action
 - Crisis response
- 10+ initial contributing partners

Global Data Facility (GDF)

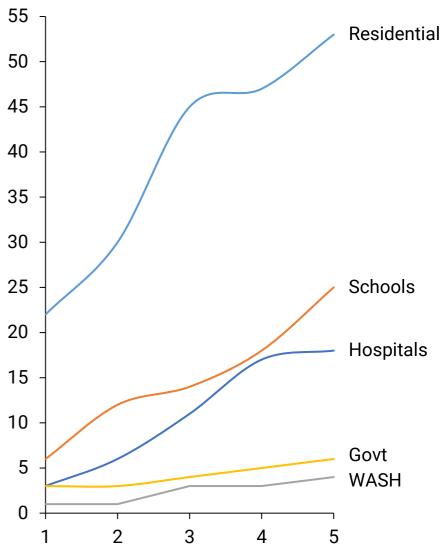
- World Bank-hosted multilateral financing instrument
- Conceived in 2018/19 to launch in 2022
- Support data & statistical capacity for sustainable dev't



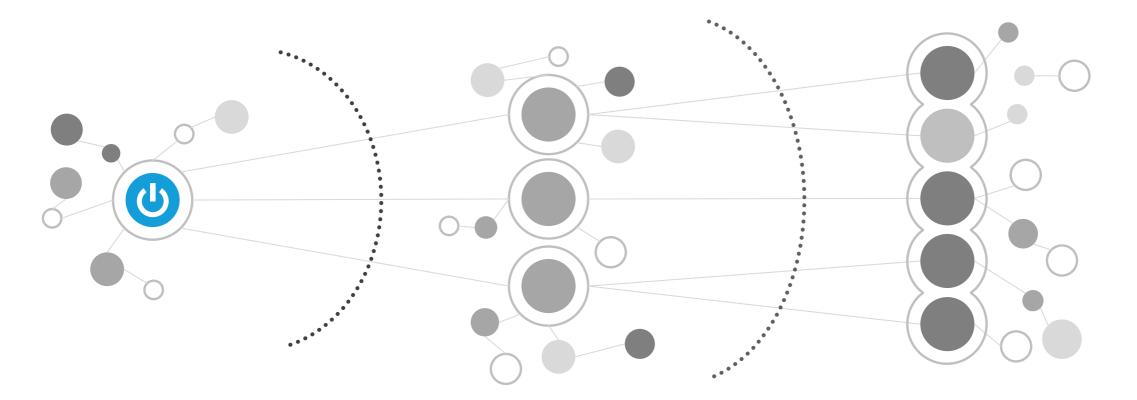
Complex geospatial analytics with purpose: Understanding reconstruction needs



Damaged infrastructure



Ready phase 2: With playbook & enablers in place, focus now on 'data for your purpose'



Annex

Action summaries

What you can do as a colleague, manager, or organization to advance data-driven change

As a colleague: What you can do to join the journey

SELECT RECOMMENDATIONS

- Sign up for the UN Data Strategy knowledge hub, events, and newsletter via this simple form
- Read the UN Data Strategy at <u>www.un.org/datastrategy</u>
- Watch the Data Strategy x The Economist event on the Knowledge Hub to understand how others build and use data capabilities
- Complete free instructor-led trainings for Microsoft Office 365 apps via the <u>UN Office 365 Learning Hub</u>
- Use your UN + LinkedIn Learning subscription for data-focused micro-courses
- Watch out for the UN + coursera announcement for certifiable courses from top universities
- Earn free certification in Microsoft Azure through the UN + Microsoft enterprise skills initiative
- Explore our use case collection and event resources on the UN Data Strategy Knowledge Hub
- Find data jobs on the Data Strategy Knowledge Hub job page
- Present your use case in a Data Strategy event starting with a quick email to <u>datastrategy@un.org</u>



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As a manager: What you can do to drive change

SELECT RECOMMENDATIONS

- Read the UN Data Strategy at <u>www.un.org/datastrategy</u>
- Bring data analysts, engineers, scientists into your team, incl. via TJOs, leverage new job profiles & workforce planning guides
- Watch the Data Strategy x The Economist event on the Knowledge Hub to understand how others build and use data capabilities
- Ask colleagues to sign up for the UN Data Strategy knowledge hub, events, and newsletter via this simple form
- Ask colleagues to complete free instructor-led trainings for Microsoft Office 365 apps via the <u>UN Office 365 Learning Hub</u>
- Invest in scalable low-cost training solutions for all like <u>coursera.org</u> via existing systems contracts (UNDP)
- Target investments in any custom training carefully
- Develop a data action plan for your team using concepts from the <u>Data Strategy Explorer</u> and <u>data action framework</u>
- Explore our use case collection and event resources on the UN Data Strategy Knowledge Hub
- Advertise your data jobs in the Data Strategy newsletter via a quick email to datastrategy@un.org
- Ask your team to present in a Data Strategy event, starting with a quick email to <u>datastrategy@un.org</u>



As an organization or department: What you can do to create better enabling conditions

STRATEGY

- Formulate a strategy or action plan to advance the data-driven transformation focused on your purpose, challenges, opportunities
- Leverage central enablers in technology, people and culture, partnerships, and strategy support to accelerate your journey
- Introduce leadership roles for data, squarely positioned on the business side with direct management report

RECRUITMENT

- Prioritize the hiring of data roles in line with the Secretary-General's "10% of workforce" target
- Hire data specialists using TJOs and new job profiles in the short term
- Re-classify some of your existing roles to become data roles in the long term
- Re-introduce entry-level positions (P-1, P-2) into budgets (see A/76/7, para. 52)

CULTURE AND TRAINING

- Ask your colleagues to join the Data Community to learn how data can drive impact and build knowledge communities in your organization
- Ask your colleagues to complete free basic trainings Microsoft Office 365
- Consider scalable training solutions w/ micro-courses or accreditation (Coursera, LinkedIn Learning)
- Allocate central training funds to priorities, incl. UN 2.0 / Data (via USTS, or \$1-2m/yr.)
- Centralize curation of some training offers in closer collaboration with business side
- Improve your systems contract portfolio for simpler procurement and share more LTA / systems contract info

TECHNOLOGY

- Link IT teams better to business units in ongoing business-led collaborations
- Budget for services, subscriptions and know-how, less for physical boxes or one-off buys
- Fortify **platforms w/ upgrades**, incl. via cost recovery / capital investment plan (as above)
- Simplify access to cloud services for business units w/ easier process and better collab.
- Enable UN family collaboration in Microsoft Office by asking your IT team to support CEB 'B2B Federation' project

