

# Building a Data-Driven Institute

## Vision, Mandate, and Pathway

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# Overview

## 1. Introduction

## 2. DSAS Position and mandate

## 3. DSAS Functions and deliverables

## 4. DSAS Vision

## 5. DSAS Q&A

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# Introduction

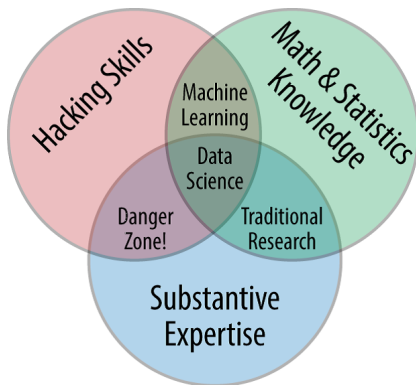
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# What are the key KIPRE milestones?

Milestone	Metric
 Year KIPRE was established	<b>1958</b>
Scientific papers produced	??
 Completed research projects	??
 Competitive grants secured	??
 Postgraduate students trained	??
 Collaborations and partnerships	??
 Additional achievements	??

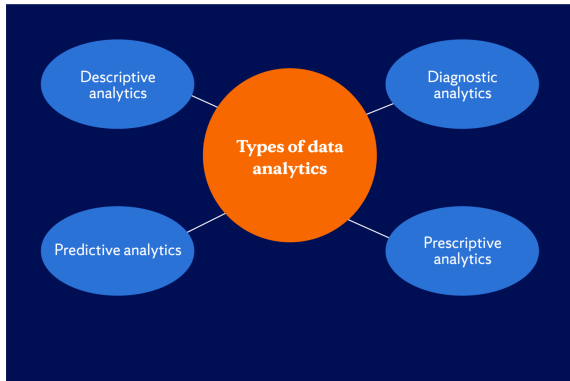
# What is Data science?






Source: Drew Conway (2013),

<http://drewconway.com/zia/2013/3/26/the-data-science-venn-diagram>

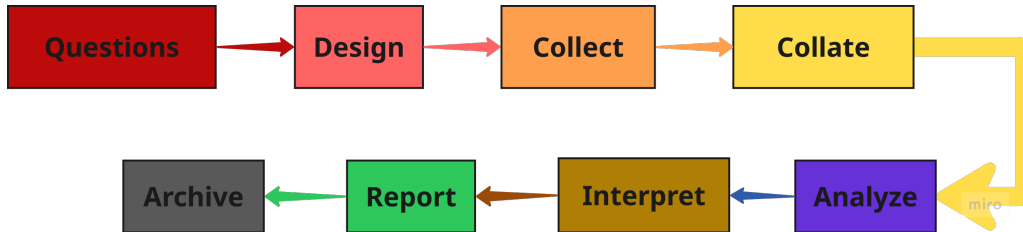
# What is analytics?



-  Uncover hidden patterns (exploration and discovery)
-  Infer causal relationships (study design and statistical analysis)
-  Make predictions (surveillance and early warning)
- Monitor performance (dashboards for programme control and reporting)

<https://ischool.syracuse.edu/what-is-data-analytics/>

# Where does it start? The research pipeline



**DSAS will strengthen every step** through design support, data standards, analysis, reporting, and Archiving.

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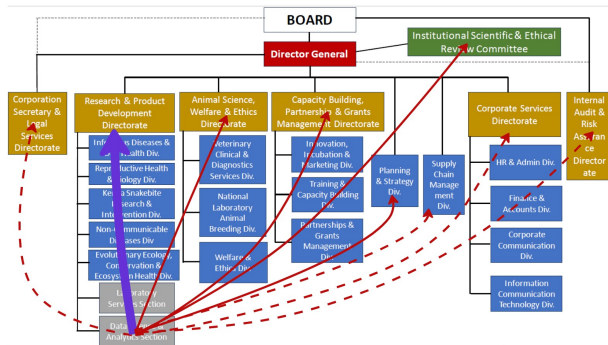


## DSAS Position and mandate

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Source: KIPRE approved organogram

## DSAS Mandate summary

- Data stewardship and data governance
- Advanced analytics and statistical support
- Training and capacity building
- Reproducible research and standardised workflows
- Dashboards and reporting for Ministry of Health and partners

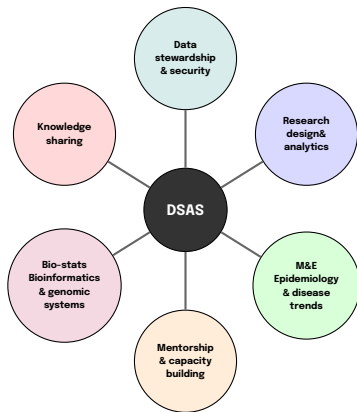
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# DSAS Functions and deliverables

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## What DSAS delivers:

- **Rigorous study design**

Convert research questions into **actionable evidence** through robust statistical analysis and modelling.

- **Impact measurement and learning**

Quantify outcomes, track change over time, and support adaptive decision-making.

- **Advanced analytical systems**

Enable access to complex biological and high-dimensional data through specialised tools.

- **Data governance and assurance**

Ensure data are **secure, compliant, accurate**, and fit for reuse.

- **Institutional capacity and continuity**

Build internal expertise and sustain analytical capability across projects.

Source: KIPRE approved career guidelines – empowering research through data excellence.

## Our internal partners

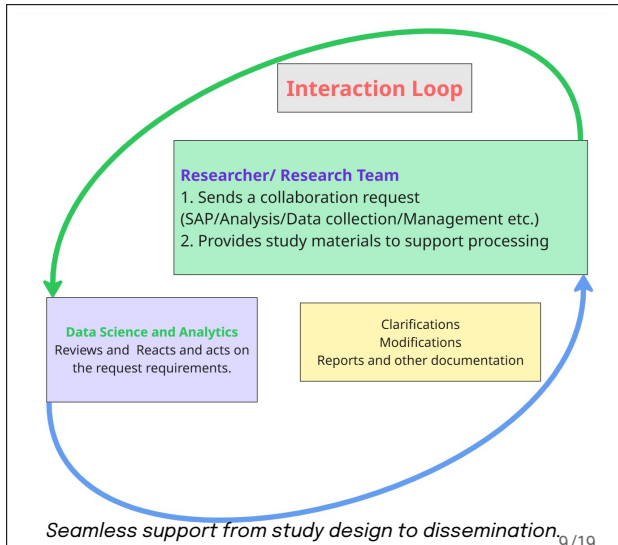
- **Scientific:** Labs, Field teams, Breeding
- **Oversight:** QA, Ethics, Surveillance
- **Operational:** Grants, ICT, Finance

## Engagement value

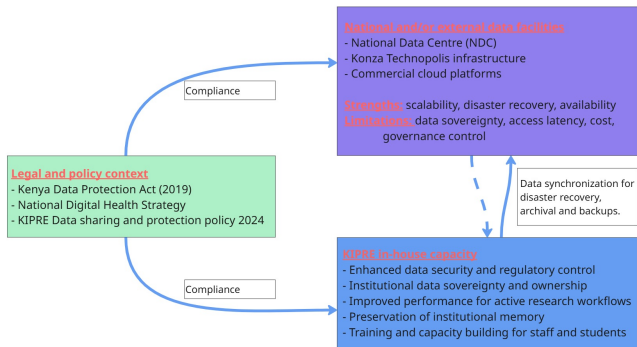
We transform raw field/lab data into **audit-ready** records and **fundable** research outputs.

[dsas@primateresearch.org](mailto:dsas@primateresearch.org)

## The interaction process



# Data management at KIPRE



# Data management approach

## Hybrid data management model

### Local data warehousing

- Active research data
- Sensitive and identifiable data
- High-performance analytics and modelling

### External / cloud infrastructure

- Disaster recovery and research continuity
- Long-term archival storage
- Encrypted backups with controlled access

This hybrid approach balances security, compliance, performance, and scalability while strengthening institutional capacity.

# DSAS in action: Strategic impact



## Laboratories

### Reliability:

Eliminating errors  
through  
**automated QC**  
and standardized  
datasets.



## Surveillance

### Real-time:

Enabling hotspot  
detection and  
**early warning** for  
public health  
action.



## Breeding

### Efficiency:

Optimizing colony  
success through  
**pedigree  
tracking** and  
analytics.



## Grants

### Success:

Accelerating  
**publications** and  
strengthening  
**grant competi-  
tiveness.**

*Providing the technical foundation for institutional excellence.*

# Standardizing excellence: DSAS SOPs

## Priority SOPs

- **Data life cycle:** Intake, cleaning, and quality control.
- **Security:** Access control, sharing, and user roles.
- **Resilience:** Backup, archival, and disaster recovery.
- **Service levels:** Analysis requests and reporting SLAs.

## Strategic value

- **Audit readiness:** Guaranteed accountability.
- **Efficiency:** Faster turnaround with less rework.
- **Institutional memory:** Preserving data for the future.



## What we ask from HODs and HOSs

- Nominate one data focal person
- Timely and complete data handover
- Support staff participation in training
- Review and approve SOPs

## What DSAS will deliver

- Standard templates and workflows
- Short, targeted trainings
- High-quality analysis and reporting
- Clear service-level agreements

**Ask:** Each division nominates one data focal person – a practical step we can start today.

# Support to institutional committees

## DSAS support

- **Ethics:** Clean, documented data
- **Scientific Review:** SAP methods review
- **QA:** Data checks and audit trails
- **ICT:** Infrastructure security input
- **Finance/Programmes:** Dashboards for oversight

## Coordination

- Small DSAS Technical Advisory Group
- Cross-committee representation
- Monthly, time-bound meetings

Ensures alignment, quality, and efficient institutional decision-making.

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## DSAS Vision

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## Vision 2028

*“To establish KIPRE as the regional leader in **data-driven research**, underpinned by a world-class analytics unit, reproducible systems, and expert talent.”*

## Strategic milestones

- **Infrastructure:** A fully operational, secure central data repository.
- **Talent:** 20+ staff trained in advanced analytics across all departments.
- **Impact:** High-level analytics directly informing national health policy.
- **Leadership:** Recognition as the regional reference centre for Bio-Data.

# Ask & Immediate next steps

## Key Asks

- Office space and budget allocation.
- More Staff to the section.

## Next Steps / Timeline

- SOP Approval
- Pilot analytics projects

## Scripted Ask:

"I respectfully request DG's approval for the DSAS SOPs, and support for office and budget allocation."

# Appreciation

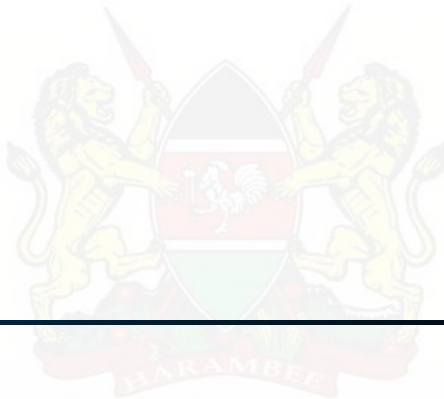
**Thank you!**

Special thanks to:

- Director General (DG)
- Director of Research & Product Development
- ICT team
- All division leads and departmental staff

*Your collaboration makes data-driven research possible at KIPRE.*

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## DSAS Q&A

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**Thank you for your attention and  
Time**

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