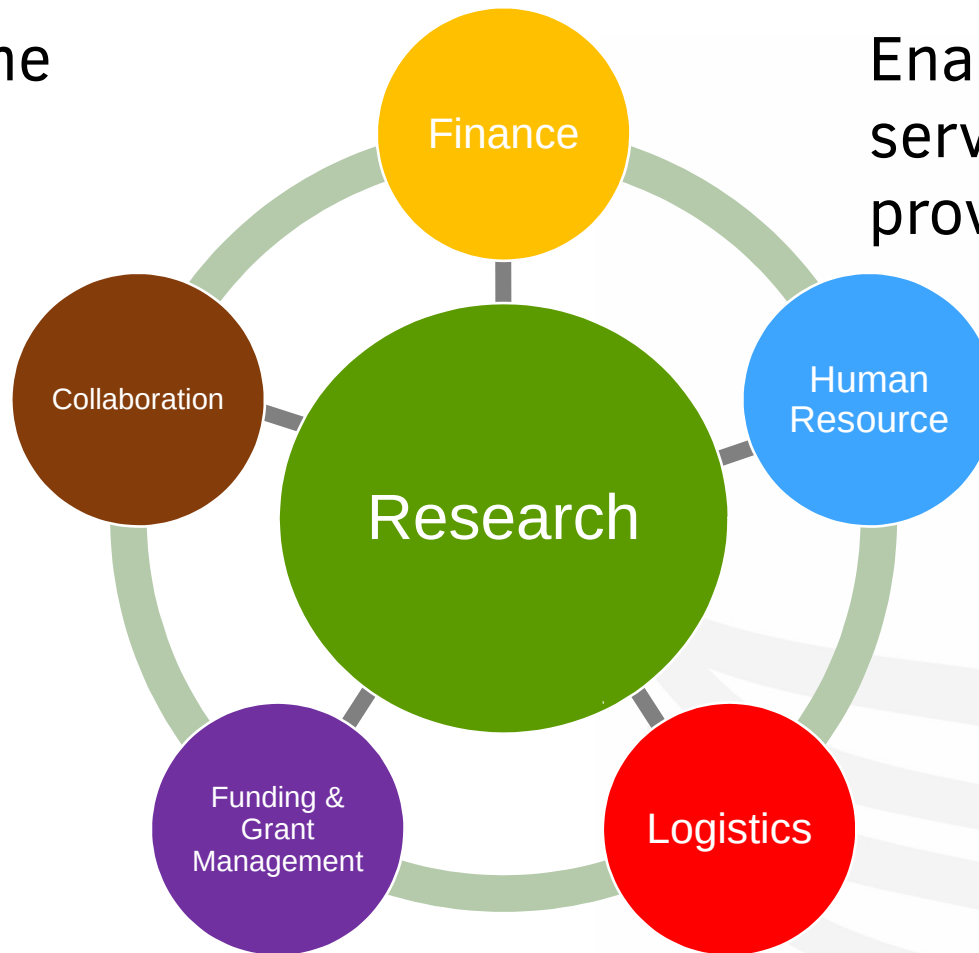Kenya Education Network

CGIAR

CGIAR is a global research partnership for a food secure future

Achieving Operational Efficiency of Research Institutes using ICT

16th April 2018

Research at the Core

Enabling services provide support

ICT brings everything together

Big Data: unlocking the future for Agriculture!

Big Data can provide new efficient decision making tools for helping agricultural development as well as biodiversity protection. New acquired, aggregated and shared data is a breeding ground for extracting and sharing useful information and knowledge among different actors involved in agriculture or biodiversity domains, as well as for combining large data sources (thus obtaining new data sources) with advanced crop and environment models to provide actionable on-farm decisions.

When you're trying to reach a goal, data not only tells you if you're succeeding, but it also suggests which activities you should do more of in order to improve your results (Bill Gates).

Semantic Web an ideal playground for Big Data research

A collection of *data sets so large and complex* that it becomes difficult to process using on-hand database management tools or traditional data processing applications. The challenges include capture, curation, storage, search, sharing, transfer, analysis, and visualization (Wikipedia; mike2.0 Big_Data_Definition).

BigDdata is big news. But what is Big Data, and how we use it? Simply put, Big Data is data that, by virtue of its *Velocity, Volume, or Variety [and the four V's of Big Data]*, cannot be easily stored or analyzed with traditional methods (Tech and Concepts of Big Data). Analytics is a helpful tool to extract knowledge from Big Data, i. gain insights from data and make decisions by applying analytical methods from mathema

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nature
International journal of science

Altmetric: 145   Citations: 2   **More detail »**

Outlook

Technology: The Future of Agriculture

Anthony King

A technological revolution in farming led by advances in robotics and sensing technologies looks set to disrupt modern practice.

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Technology that Will Change Agriculture in 2017

🕓 March 22, 2017   👤 Guest Authors   🗁 Agriculture, Science   💬 0

Screen Shot 2017-03-20 at 8.15.44 PM

Ag Tech Changes to Look for in 2017

Photo by Mauricio Lima | Flickr | CC license

Datasets in Dataverse

World Agroforestry Centre - ICRAF Dataverse (World Agroforestry Centre)   Transforming lives and landscapes with trees

Harvard Dataverse > **World Agroforestry Centre - ICRAF Dataverse**

✉   ⎙

<   **Borneo - Sumatra Sentinel Landscape Dataverse**   **Mekong Sentinel Landscape Dataverse**   **Nicarugua - Honduras Sentinel Landscape Dataverse**   **Western Ghats Sentinel Landscapes Dataverse**   >

Search this dataverse...   🔍 **Find**   **Advanced Search**

✔ **Dataverses (12)**   1 to 10 of 331 Results   ↕ Sort ▾

✔ **Datasets (319)**

☐ **Files (1,955)**

Dataverse Category

Research Project (12)

Publication Date

2014 (124)
2015 (102)
2012 (67)
2011 (22)
2013 (16)

Replication Data for: Early survival and growth of Allanblackia stuhlmannii (Clusiaceae): a threatened tropical rainforest tree of high economic value in Tanzania

Nov 23, 2015

Mpanda, Mathew Mathayo; Munjuga, Moses; Cordeiro, Norbert ; Coe, Richard; Ofori, Daniel ; Simons, Anthony ; Sawe, Corodius ; Jamnadass, Ramni, 2015, "Replication Data for: Early survival and growth of Allanblackia stuhlmannii (Clusiaceae): a threatened tropical rainforest tree of high economic value in Tanzania", http://dx.doi.org/10.7910/DVN/8Y9PJW, Harvard Dataverse, V1

Rural households living in tropical ecosystems depend heavily on forest trees for valuable nontimber forest products that are, however, undergoing unsustainable harvesting. This study assessed early survival and growth of Allanblackia stuhlmannii (Clusiaceae), a nontimber tree sp...

Replication Data for Diversity and Vertical Distribution Characteristics of Vascular Epiphytes in Bulong Nature Reserve

KALRO e-Repository

To Store and Process AgData

- Capabilities and expertise

- Large Storage capacity

- High Performance Computing

- High speed internet

- Software & Applications

- Sources of funding

ation & Cloud Computing

- IT becomes an operating expense
  - No more large capital investments, pay by subscription or pay for what you use

- TCO of high standard data centre space
  - Certifications, security standards, best practice processes

- Universal access
  - Each campus or mobile user has equal access

- Up to date software
  - Keeping up to date is a continuous, incremental process

- Flexibility
  - Fast deployment, upgrade or downgrade on demand in minutes

Working together

- ICT Shared Services

- Build Capabilities & Expertise

- Standardisation

- Automating and remotely managing processes

- Full cost recovery of services

- Sharing of experiences and resources

- Negotiate bulk discounts

One Corporate System

One Corporate System (OCS) is a CGIAR Centres' initiative to implement Unit4 Business World (UBW) as their common ERP.
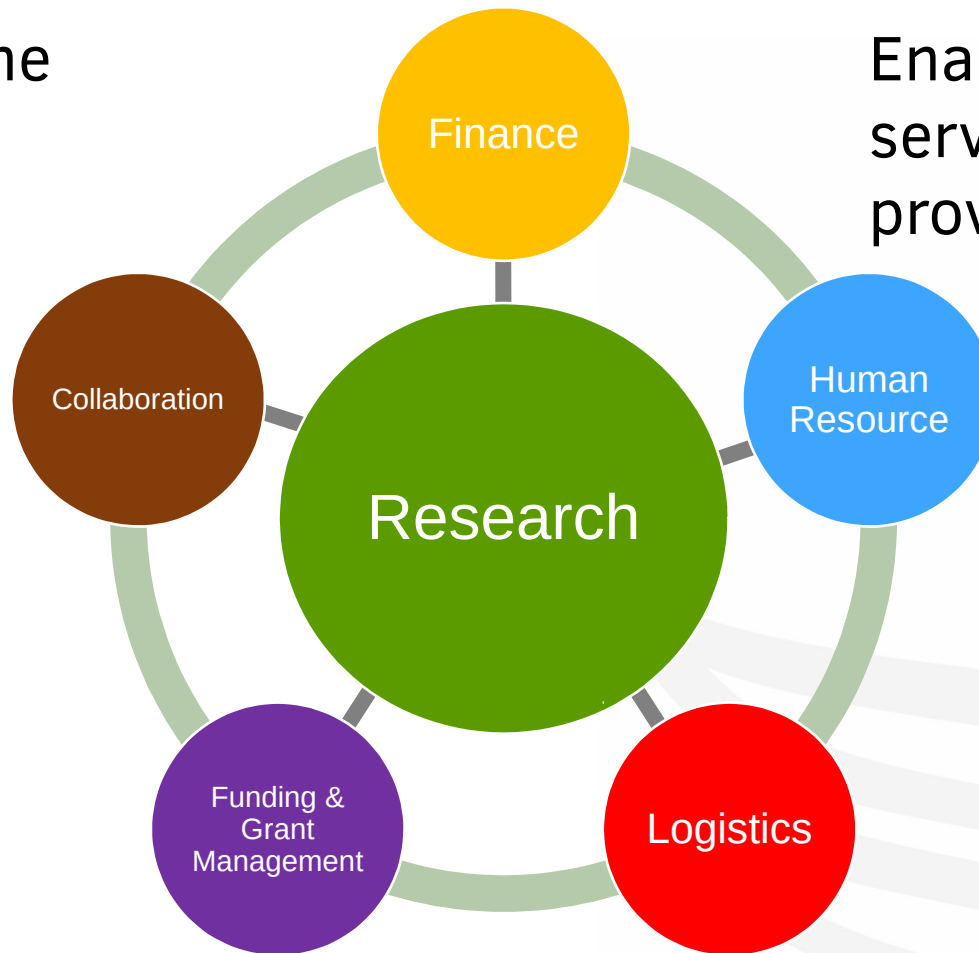
A single solutions design document was developed from which a core base client was built. Incorporates Finance, Human Resources, Logistics, Planner, Research Management, PCB, Timesheets and Payroll.

Centres add local process requirements to create the flexibility required by independent organisations

Research at the Core

Enabling services provide support

Finance

Collaboration

Research

Human Resource

Funding & Grant Management

Logistics

ICT brings everything together