

- Climate change
- Food security
- Water resources

Franco-German cooperation with Africa: Sharing Vision Targets & Tools

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LA RECHERCHE

1

Sharing a Vision

The statement :



Climate-Smart Agriculture: Towards Sustainable landscapes and Food Systems Mobilizing science for transitions

Agriculture is a sector **particularly vulnerable** to climate change, which impacts livelihoods, **especially that of the world's poorest people**.

Agriculture has also a central **role in strongly reducing greenhouse gas emissions** and lies therefore at the heart of complex challenges to be addressed

Climate-Smart Agriculture (CSA) invites researchers, practitioners and policy makers to explore **solutions combining three pillars, food security, climate change adaptation and mitigation** (underpinning sustainable landscapes and food systems).

This is essential since the sector is facing **unprecedented uncertainty and risks**.

2

Sharing Multiple Targets

Sharing Multiple Targets

From the field ... to the plate :

Food and nutrition security

Climate change adaptation/mitigation

Soil conservation

Water scarcity

Sustainable agriculture / agro-ecology

Price volatility

Competition for land

Food losses and wastage

3

French tools :

**Agriculture Research for
Development**

National tools : Agriculture Research for Development

BUDGET (for 2010):

Ministry in charge of Higher Education and Research	€ 197,000,000
Ministry in charge of Foreign Affairs	€ 9,500,000
Ministry in charge of Agriculture	€ 11,800,000
Agropolis Fondation	€ 4,000,000
TOTAL	€ 222 300 000

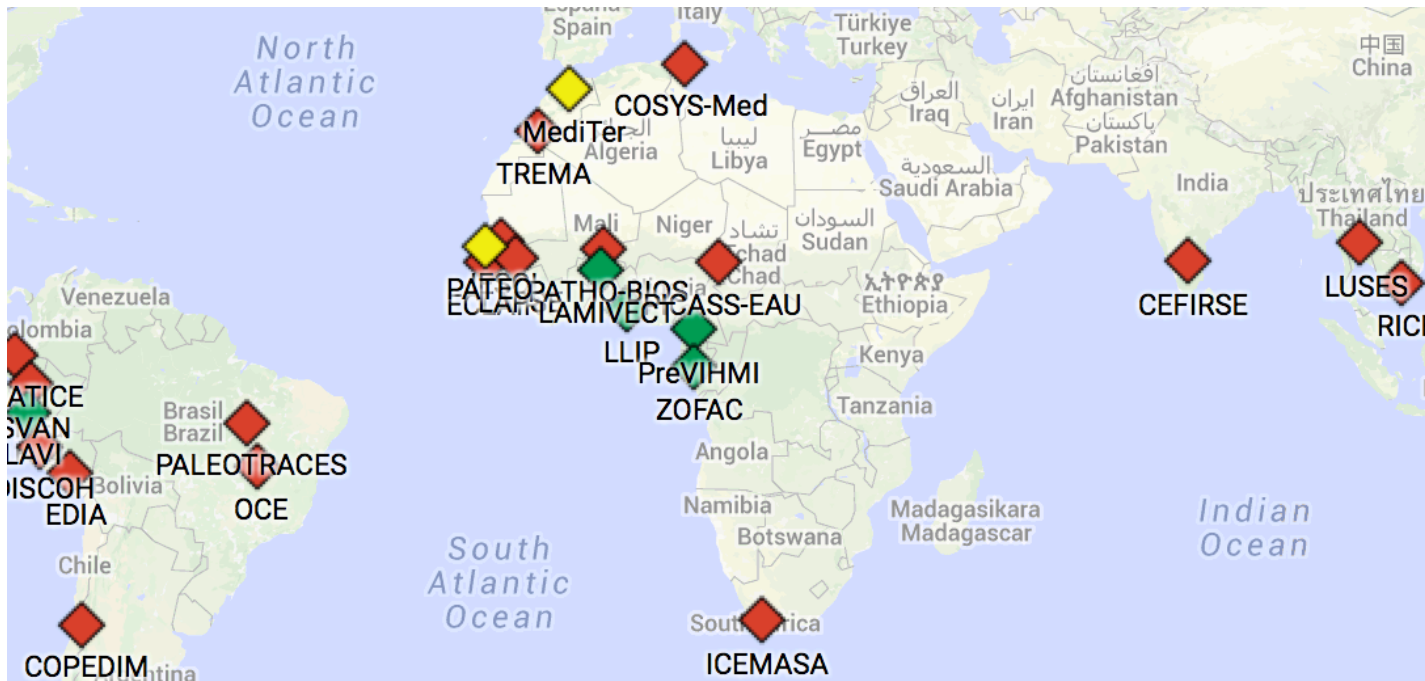
RECIPIENTS (for 2010):

CIRAD	€ 126 300 000
IRD	€ 70 000 000
IRSTEA	€ 2 000 000
CGIAR (in cash + scientist secondment)	€ 6 000 000
FSP (priority Solidarity Fund)	€ 5 000 000
Technical assistance to NARS	€ 4 000 000
Resarch and Training for tropical countries	€ 9 000 000

National tools : Agriculture Research for Development

IRD : International Joint Laboratories

Operational research structures located in a partner institution, created in conjunction with the IRD's partners in both the North and the South.



National tools : Agriculture Research for Development

CIRAD : Platforms in Partnership for research and training

No sustainable development without a **culture of science**: Working for development through research

No culture of science without **local generation of scientific knowledge**: Strengthening scientific communities in developing and emerging countries.



4 Sharing tools: Long-term Observatories

Long-term Observatories

Franco-German cooperation:



AMMA-CATCH

African Monsoon Multidisciplinary Analysis - Coupling the Tropical Atmosphere and the Hydrological Cycle

Presentation

Observation sites & data

Partners

Activities

Publications

Related projects

People

Contact

Database access

Search

OK



A hydrological and meteorological observatory on West Africa

AMMA-CATCH is an [observation service \(SO\)](#) dedicated to long-term monitoring of climatological, hydrological and ecological changes in West Africa. For this purpose, it gathers data from [three densely instrumented sites](#) [fr], going back as far as the mid-1980s in the Sahelian part of the observation network. These three sites cover areas ranging between 10000 and 25000 km² and are located at different latitudes so as to sample the characteristic eco-climatic gradients of the region.

Simultaneous monitoring of the vegetation cover, the phenology and the various terms of the water balance (rainfall, infiltration, groundwater recharge, surface runoff) at the three sites provides insight into the interactions between the water cycle, vegetation dynamics and climate variability at intraseasonal and interannual scales over this region that is highly vulnerable to the impacts of climate change.

Read more about [the lessons learned from the observations.](#) [fr].

2015 observation monitoring

[Mali](#) [fr] - [Niger](#) [fr] - [Benin](#) [fr]

News

AMMA-CATCH choisi en tant que sites de validation du satellite SMAP

Long-term Observatories

Franco-German cooperation:



PIRATA Prediction and Research Moored Array in the Tropical Atlantic



PIRATA France

Welcome

About PIRATA

PIRATA-FR Cruises

São Tomé Island

French team

Project ressources

Data and Products

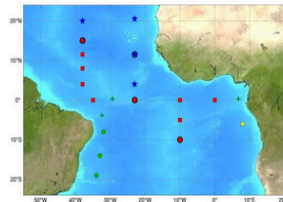
Reports and Publications

PIRATA links

Contact

F Lapeyrie, Berlin, 01/06/2015

About PIRATA



The PIRATA project is a joint effort between Brazil, France and the United States to collect oceanic and meteorological observations in the tropical Atlantic.

The experimental program PIRATA (initially « Pilot Research moored Array in the Tropical Atlantic » and named « Prediction and Research Moored Array in the Tropical Atlantic » from 2008) has been implemented in 1997 in the Tropical Atlantic Ocean (Servain et al. 1998). It has been launched in the framework of the international program CLIVAR (CLImatic VARIability and predictability) and implies scientific teams from three countries: France (**IRD**, in charge of coordination and oceanic cruises, **Météo France**, with contributions by **IFREMER** and **CNRS/INSU**), Brazil (**DHN** and **INPE**) and USA (**NOAA/PMEL**). Financial supports for the program are from the **IRD**, **Météo France**, and **Observatoire Midi-Pyrénées/Université Paul Sabatier**.

More...



Long-term Observatories

To go further, we need to:

- **Reinforce existing links between networks** or create new ones: e.g. «Critical Zone» (France) with «Tereno» (Germany).
- **Access European integration level:** e.g. as part of European Long-Term Ecosystem Research Network (LTER).
- **Get long-term commitment:** e.g. through ESFRI recognition as « Research Infrastructure ».
- **With African partners:** Jointly designed and managed projects with shared commitment.

5 Sharing tools:

A new International
Research Initiative
“4 per 1000”

International Research Initiative “4 per 1000”

Stéphane LE FOLL, Ministre de l'Agriculture, de l'Agroalimentaire et de la Forêt

Laurence TUBIANA, Ambassadrice chargée des négociations sur le changement climatique



Press Conference April 27th 2015



CLIMATE-SMART
Agriculture
2015

Global Science Conference
March 16-18, 2015
Le Corum, Montpellier France



G20 Agriculture Ministers Meeting Istanbul, 7-8 May 2015 Final Communiqué

5. **Sustainable food systems should** promote sustainable increases in productivity and production, use natural resources more efficiently, increase resilience and **help address climate change** in accordance with the UNFCCC. **Improvement of soil fertility, water retention capacity and restoration of degraded land are key elements** to improve agricultural productivity for food security in a changing climate.

International Research Initiative “4 per 1000”

What is it about ?

Carbon sequestration in soils at global scale.

An international research initiative to increase C concentration in soils by 4/000 each year

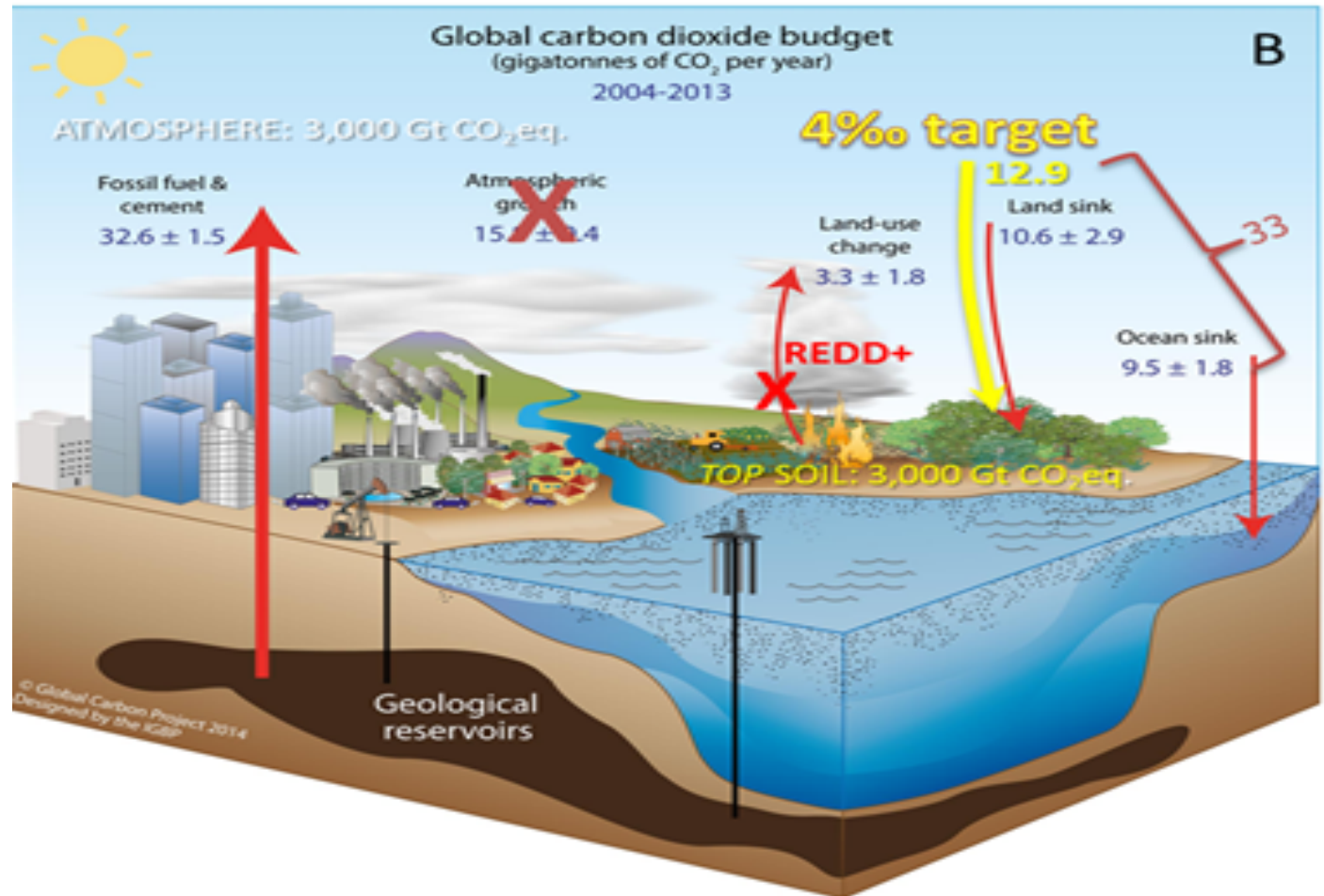
Concept developed in a paper by :

Jean-Francois Soussana, INRA, IPCC member

Hervé Saint-Macary, CIRAD

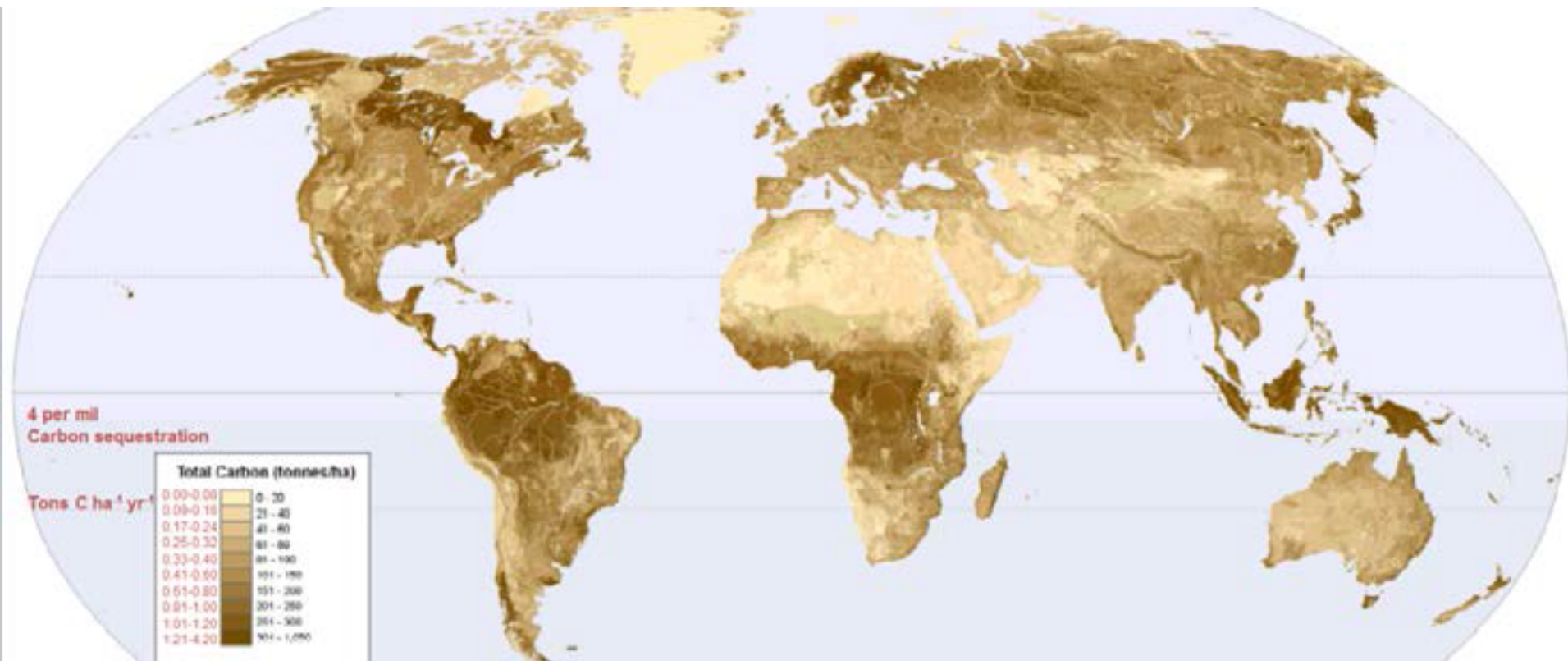
International Research Initiative “4 per 1000”

How does it work ? The target !



International Research Initiative “4 per 1000”

Obvious heterogeneity : Stocks of carbon in soils (tonnes C/ha) (source UNEP, FAO, JRC 2010) and annual Carbon sequestration according to 4/1000 hypothesis (tonnes C/ha).



Targets:

- Semi-arid regions : 0 to 0,16 t C/ha/an
- Temperate regions: 0,17 to 0,40 t C/ha/ an
- Equatorial humid regions, some boreal regions regions: 0,4 to 1 t C/ha/an.

A lot of research still needed ...

A Win-Win option : Not only about mitigation

- Improved soil fertility
- Better water retention
- Favour adaptation to climate change
- Degraded land reclamation
- Sustainable intensification of agriculture (agro-ecology)
- New opportunities for African research and agriculture toward food security

International Research Initiative “4 per 1000”

Next steps 2015:

- July, UNESCO: First scientific conference
- September, OECD: Second scientific conference
- December, COP 21 in Paris: Toward an action plan

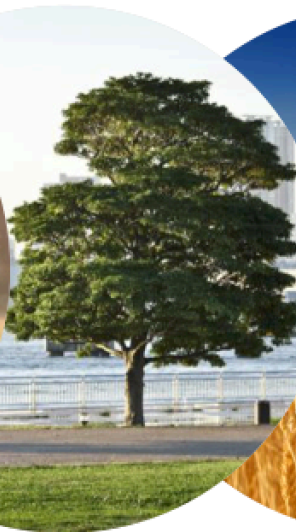
Numerous opportunities for French-German cooperation inside this process and with Africa



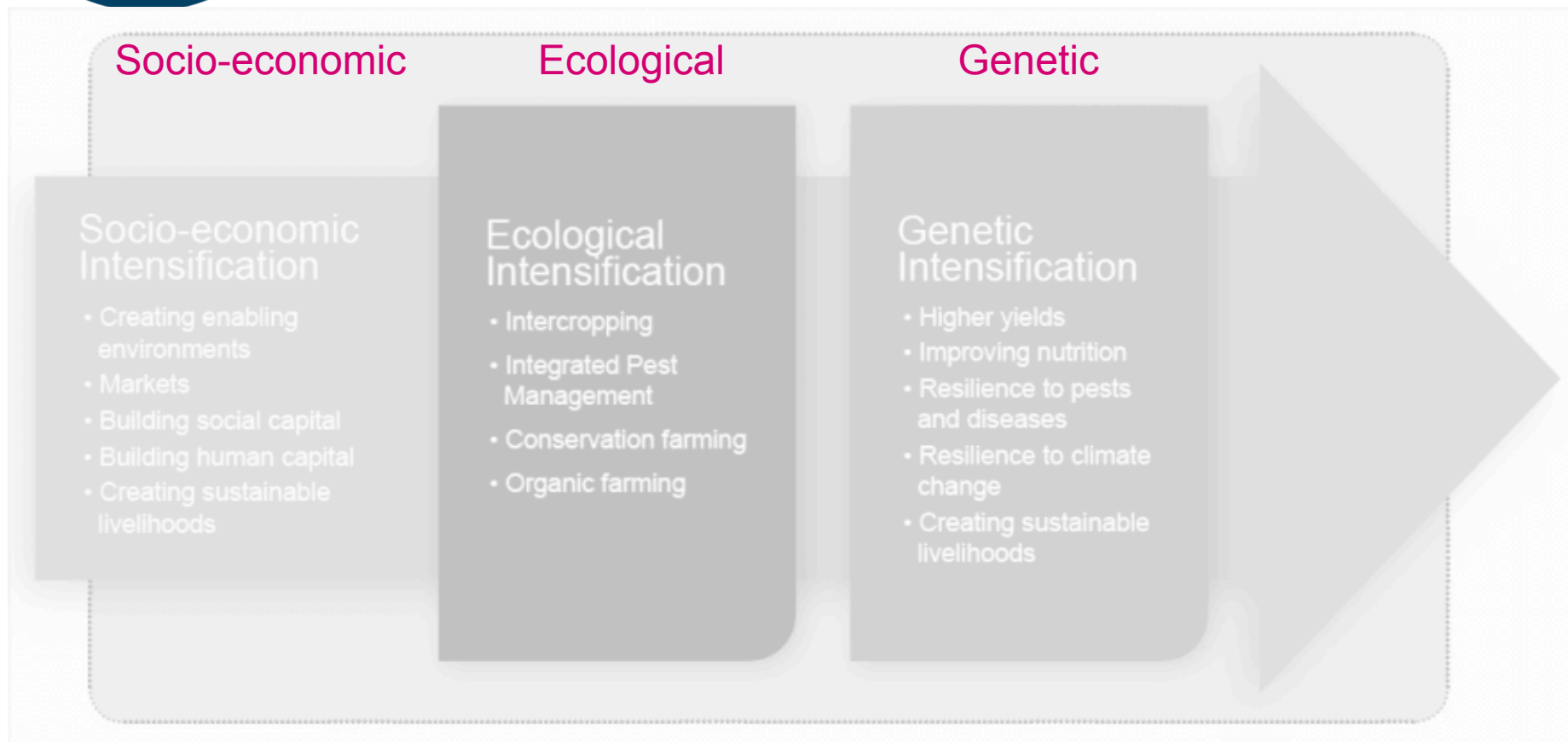
6 Sharing tools: “IntensAfrica” initiative & EC-AUC HLPD

“IntensAfrica” initiative & EC-AUC HLPD

IntensAfrica: an Africa-EU collaboration



Thematic focus: Sustainable Intensification



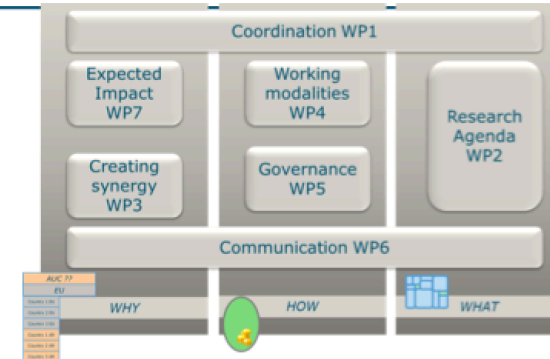
“ IntensAfrica” initiative & EC-AUC HLPD

From April 2015 to March 2017 :
the Coordination and Support Action ProIntensAfrica

A winning consortium !

- 14 European and 8 African partners
- Joint Europe/Africa leadership

of each WP



WP	EU		Africa	
1	WUR (NL)	Huub Loffler	FARA	Adewale Adekunle
2	CIRAD (FR)	Florent Maraux	CORAF	Abdoulai Jalloh
3	UCL (B)	Philippe Baret	CCARDESA	Simon Mwale
4	SLU (S)	Carolyn Glynn	CORAF	Aboubakar Njoya
5	IICT (P)	Ana Melo	FARA	Jonas Mugabe
6	MTT (F)	Rou Tubb	AFAAS	Dan Kisauzi
7	UoC (D)	Andreas de Neergaard	ASARECA	Enoch Warinda

“IntensAfrica” initiative & EC-AUC HLPD



Roadmap proposal towards a EU-Africa Research & Innovation Partnership on food and nutrition security and sustainable agriculture

By **Mohammed Jeenah and Philippe Petithuguenin**, on behalf of all the 10 members of the Expert Working Group appointed by the EU-Africa HLPD Bureau: Ibrahim RM Benesi, Joachim von Braun, Johnson A Ekpere, Mohammed Jeenah, Luís Goulão, Daniel Nkoola Kisauzi, Helena Gómez Macpherson, Philippe Petithuguenin, Paco Sereme and Jeff Waage.



“ IntensAfrica” initiative & EC-AUC HLPD

April 27, 2015, Brussels:
Roadmap accepted by the EU Africa HLPD bureau

WHAT



Strategic Research and Innovation Agenda

- Sustainable intensification => **aligned with IntensAfrica Initiative**
- Agriculture and food systems for nutrition
- Expansion and improvement of agricultural markets and trade



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To conclude :

**DE-FR in multilateral
approaches**

DE-FR in multilateral approaches

- Long-term observatories

- Initiative “4 per 1000”

- EC-AUC HLPD toward “IntensAfrica ”

We need to exploit further the DE-FR potential (scientific and political) toward multilateral mobilisation with EU partners.

Europe benefit from a strong experience of multilateral scientific cooperation (ERA) and a long history of scientific partnership with African scientific organisations.

We should mobilize resources in Europe beyond H2020. For instance, DG DEVCO at EC being an intermediate user of research outputs for development, a closer dialogue could be initiated toward new initiatives.

COP 21 in Europe in 2015 is an opportunity to set up new initiatives, at European or global scale, in partnership with Africa.



Thank You