Towards a global revolution in Education: using
digital technology to provide quality education for all

MARCH, 21st 2013
BUILDING OUR FUTURE
About 2iE

- An International training and research center
- Training, in Africa, highly-skilled entrepreneurial engineers with initiative and entrepreneurship: key economic players for Africa’s development

Water and Sanitation • Environment • Energy • Civil Engineering • Mining • Management Sciences
Sharing our values

Diversity

Commitment

Responsability

Merit

TRAINING, INNOVATION AND ENTREPRENEURSHIP TO PARTICIPATE IN AFRICA’S DEVELOPMENT
Attracting Worldwide
Onsite learning: applications from 36 countries
E-learning: applications from 43 countries
Student population growth

1973
Onsite students

More than 1000
Online students

5000
Graduates since 2iE’s creation

40
PhD students
A young, gender balanced and international student population

International and multicultural dimension

- Students: **27** nationalities on-site learning and **30** e-learning
- Faculties: **24** nationalities / **4** continents
- Research: **24** partner universities / **11** countries / **4** continents
### Contributing to building capacity in Africa

<table>
<thead>
<tr>
<th>Country of origin</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENIN</td>
<td>377</td>
</tr>
<tr>
<td>BURKINA FASO</td>
<td>1176</td>
</tr>
<tr>
<td>CAMEROON</td>
<td>556</td>
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<tr>
<td>CENTRAL AFRICA</td>
<td>78</td>
</tr>
<tr>
<td>CONGO</td>
<td>195</td>
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<tr>
<td>GABON</td>
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<tr>
<td>GUINEA</td>
<td>111</td>
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<td>IVORY COAST</td>
<td>383</td>
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<td>MALI</td>
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<td>MAURITANIA</td>
<td>82</td>
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<tr>
<td>NIGER</td>
<td>418</td>
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<tr>
<td>SENEGAL</td>
<td>388</td>
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<td>CHAD</td>
<td>295</td>
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<tr>
<td>TOGO</td>
<td>336</td>
</tr>
<tr>
<td>DRC</td>
<td>23</td>
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<tr>
<td>OTHER (10)</td>
<td>57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4843</strong></td>
</tr>
</tbody>
</table>

In 2013
729 potential graduates
Graduate employment: Economic growth and MDGs

- 95% Working within 6 months
- 38% Growth in subsaharian Africa in 2012
- 29% Environment
- 85% Private sector
- 14% Energy
- 19% Water
- 98% Working in Africa
- 5,3% Creating responsible businesses
Companies recruiting 2iE Graduates
A leading African School offering E-Learning courses in engineering

- Degrees and Certificates
- Flexibility

A success rate among the highest worldwide

Success rate 2008 – 2001 results

Minimum drop-out rate: 9% (2iE), 30% (International average)

Maximum drop-out rate: 11% (2iE), 80% (International average)
Success in international competitions

Global Social Venture Competition
*International competition of social entrepreneurship business plans*

**Faso Pro – 2012**
Developing a national agribusiness with caterpillars, contributing to preventing malnutrition in rural areas

Bouygues Construction Challenge 2013
*24-hours challenge around a innovative construction project*

**Team 2iE / EPF / ESSEC**
3rd place
2iE at the heart of an active network for innovation and green growth

2012 WISE Book
2iE selected among fifteen case studies of innovative models for education in the world

World Water Council
2iE elected Governor for developing innovative solutions for water management and sanitation
A WORLD CLASS STANDARD EDUCATION
General structure: BMD

- **D1** Bachelor’s Degree in engineering
- **D2** Bachelor of Sciences
- **D3** Bachelor Of technology
- **M1** Advanced Master’s Degree
- **M2** Master’s Degree in engineering
- **B1** Bachelor’s Degree in engineering
- **B2** Bachelor of Sciences
- **B3** Bachelor Of technology

- **PhD Degree in Water, Energy and Environmental Sciences**
International recognition of quality of training

A Quality Management System

Labeled Center of Excellence

Accredited degrees

Academic network
Creating Entrepreneurial Engineers to support innovation and green growth in Africa

Innovation

Water and Climate
- LEDES: Water, Decontamination, Ecosystems and Health

Energy and Sustainable Habitats
- LEAH: Hydrology and Water Resources
- LEBE: Biomass Energy and Biofuels
- LEMC: Eco-Materials for Construction
- LESEE: Solar Energy and Energy Saving-Water Resources

2iE’s JOINT RESEARCH CENTERS

Social Entrepreneurship and Green Growth in Africa

Business partners
Business School
Funding
Education based on research for development: 5 laboratories

**Common Research Center**

**Water and Climate**
- LEDES: Water, Decontamination, Ecosystem and Health
- LEAH: Hydrology and Water Resources

**Common Research Center**

**Energy and sustainable Habitats**
- LBEB: Biomass Energy and Biofuels
- LESEE: Solar Energy and Energy Efficiency
- LEMC: Eco-Materials and Construction

An international Doctoral School with 15 partner universities

Founder member of Virtual University Environment and Sustainable Development (UVED)
ORGANIZATION AND GOVERNANCE
Innovative system of governance
Public Private Partnership

2iE, non-profit international organization

**General Assembly**

1. African States
2. Institutional and Financial Partners
3. Scientific and Academic Partners
4. Private Sector

**7 Committees**
- Strategic
- Audit
- Risk
- Ethics
- Employment
- Student
- Academic

**Board**

- General Management
- Scientific Council

2iE, non-profit international organization
NEW TOOLS FOR EDUCATION
African Pulse
The African Lions emerging

**Human capital**
- 2013: 54 countries, population 1 billion
- 2020: 500 million workers
- 2030: 20% of global population, 50% in cities

**Economic growth**
- GDP: Over 5% since 10 years

**Education and research**
- Growth of the educational system slower than that of the middle class

**Investments**
- Foreign investment: 62 USD billion, 2nd rate in the world for return on inv.

**Employment**
- 330 million young African workers within the 15 next years

**Brain drain**: 20,000 high skilled Africans leaving the continent each year
Education and Employment
A gap between needs and existing tools

Investments
In primary and secondary education

**BUT**

Shortage
Of investments in higher education and professional training

✓ High levels of youth unemployment
✓ Highly-skilled people missing in the private sector

**African students**

<table>
<thead>
<tr>
<th>Year</th>
<th>Students (Million)</th>
</tr>
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<tbody>
<tr>
<td>1991</td>
<td>2.7</td>
</tr>
<tr>
<td>2006</td>
<td>9.3</td>
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<tr>
<td>2015</td>
<td>20</td>
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</table>
Education and Employment

What we can do

BUILDING SCHOOLS

LONG TERM PROCESS

Employment

SHORT TERM NEEDS

2015
✓ 20 millions students
✓ 500 millions workers
Innovation in Education

What we should do

New training terms

« Taxi-brousse low-cost »

Flexibility Retail sale

New marketing solutions

IT services

New tools

Payment capacity

128
Million African households with discretionary income in 2020

500
Millions cellphones in Africa today

e-Education

M payment

New tools
ONLINE LIFELONG TRAINING
2iE: an innovating E-learning system
« Taxi-brousse / Low cost » system

**Flexibility**
A cohorts system to fit African needs
- Enrolment at any time throughout the year
- Retail sale
- Degree programs and certificates

**Expertise**
Creating contents and team working animation
- Capacity building opportunities for professionals
- 2 or 3 teaching modules in a 4 weeks period
- Case studies by groups
- Online coaching
New partnerships for education

Starting to test new solutions

Côte d’Ivoire

- New consumers, middle class
- Professionals
- Parents

Mobile SMS campaign
M-payment
Paying course credits 1 by 1
Smartphones
Applications

e-courses
Interactive contents
New partnerships for education
Using digital technology to provide quality education for all

Providing quality education…

… in digital Africa
Thank you

www.2iE-edu.org