Online University for LDCs: Closing the digital divide in STEM education High-level Expert Group Meeting

The current state of STEM education in LDCs based on the
IAU World Higher Education Database (WHED.net)

By Trine Jensen
IAU Manager, HE & Digital Transformation

The International Association of Universities (IAU)

- the Global Voice of Higher Education

INGO created in 1950 by UNESCO

+ 600 Members in + 120 countries

Global Forum for Exchange

World Higher Education Database WHED

Leadership

Internationalization

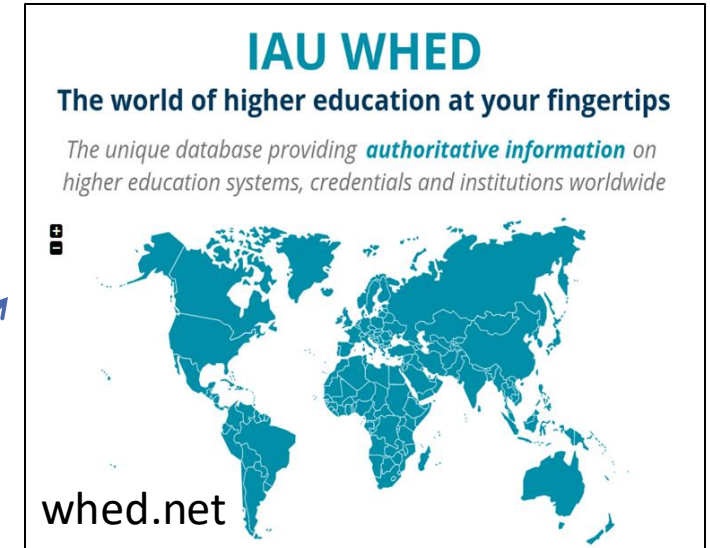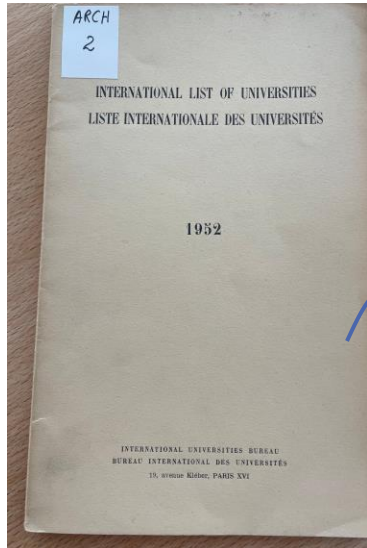Sustainable Development

Digital Transformation

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INTERNATIONAL UNIVERSITIES BUREAU

What is the IAU World Higher Education Database (WHED)?

in collaboration with

whed.net

Information about:

- ✓ **+21K** Higher Education Institutions (HEIs)
- ✓ HE systems in **190** countries/territories

What is the IAU World Higher Education Database (WHED)?

UNESCO Global Convention on the Recognition of Qualifications concerning Higher Education (2019)

The Global Convention establishes universal principles for fair, transparent and non-discriminatory recognition of higher education qualifications and qualifications giving access to higher education and offering avenues for further study and employment.

The IAU World Higher Education Database (WHED)

The WHED is an essential resource for the implementation of the UNESCO Convention as it assembles information on national education systems required for recognition purposes and includes a list of accredited universities.

What does it take to be in the WHED?

• be recognized and referenced by the national competent body.

• be a degree-conferring institution offering at least a four-year degree or a four-year professional diploma.

• have had at least three cohorts of graduates at undergraduate level or its equivalent at a postgraduate institution.

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Higher Education Institutions by region (WHED)
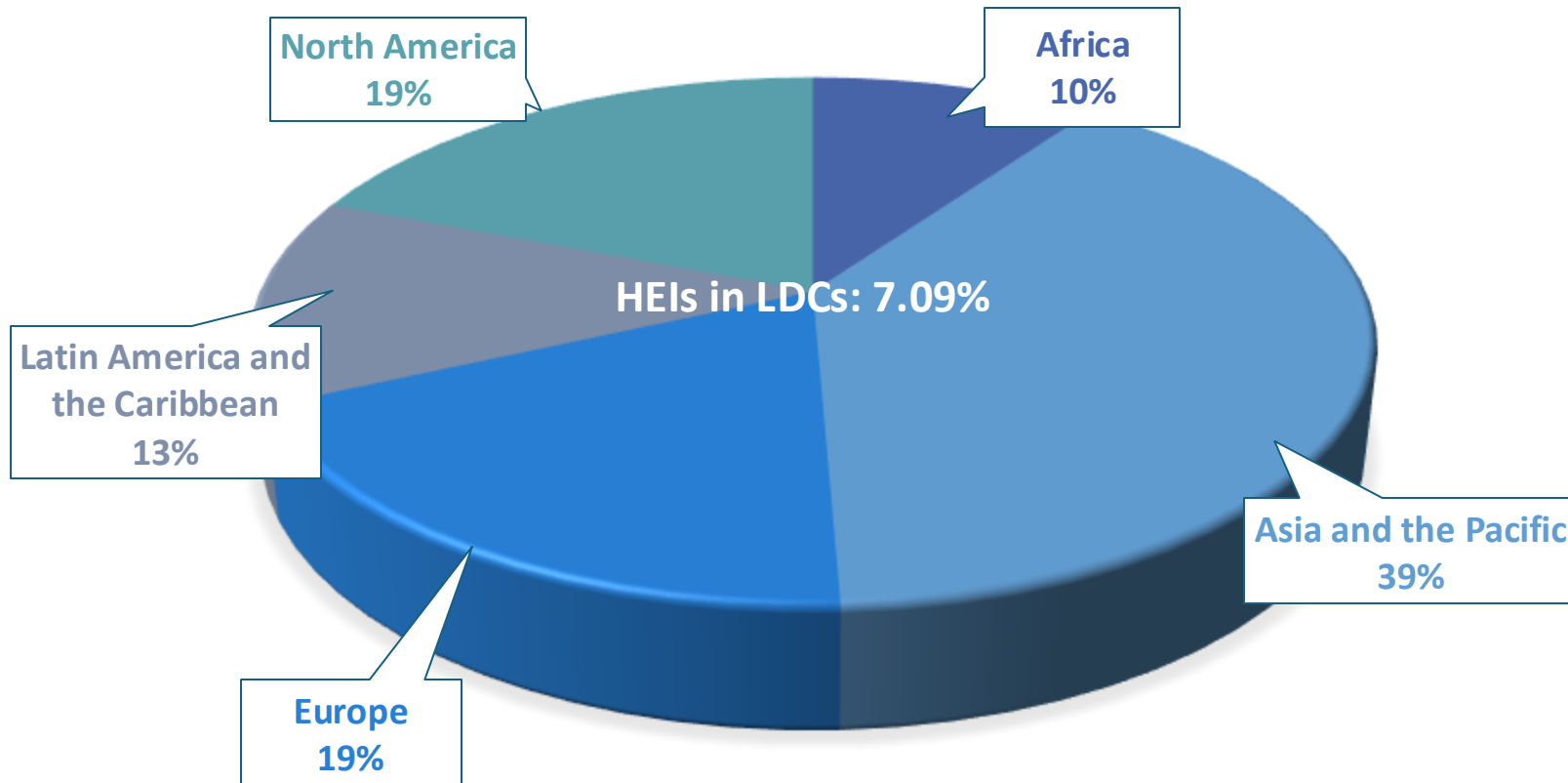
Region	Institutions
Africa	2,032
Asia and the Pacific	8,203
Europe	4,203
Latin America and the Caribbean	2,783
North America	4,359
Total	**21,580**
Least Developed Countries	1,530

North America
19%

Africa
10%

Latin America and the Caribbean
13%

HEIs in LDCs: 7.09%

Asia and the Pacific
39%

Europe
19%

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Higher Education Institutions by region (WHED)

	Institutions	Public	Public %	Private	Private %
Global	21,580	9,295	43.07%	13,853	56.93%
Africa	2,032	835	41.09%	1,197	58.91%
Asia and the Pacific	8,203	3,267	39.83%	4,936	60.17%
Europe	4,203	2,859	68.02%	1,344	31.98%
Latin America and the Caribbean	2,783	749	26.91%	2,034	73.09%
North America	4,359	1,585	36.36%	2,774	63.64%
Least Developed Countries	1,530	577	37.73%	954	62.29%

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STEM Disciplines (Fields of Study)
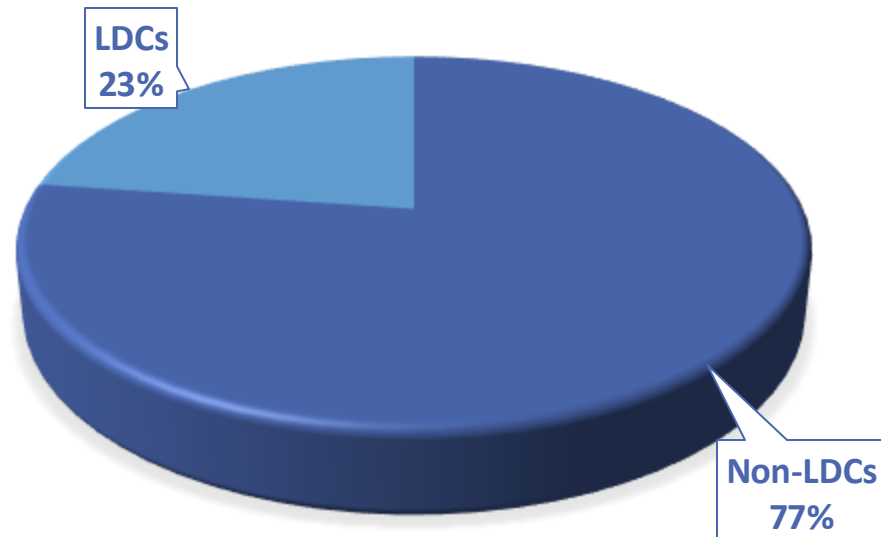
Agriculture
Engineering
Health Sciences
Information Sciences
Mathematics and Computer Science
Natural Sciences
Technology
Transport (and Communications)

Architecture and Planning
Arts and Humanities
Business Administration
Education
Fine Arts
Home Economics
Law
Performing Arts
Religion
Service Trades
Social Sciences
(Transport and) Communications
Welfare and Protective Services

N° of STEM degrees offered by HEIs by region (WHED)

Africa
15%

Asia and the Pacific
26%

Europe
21%

Latin America and the Caribbean
14%

North America
24%

STEM in LDCs: 4.60%

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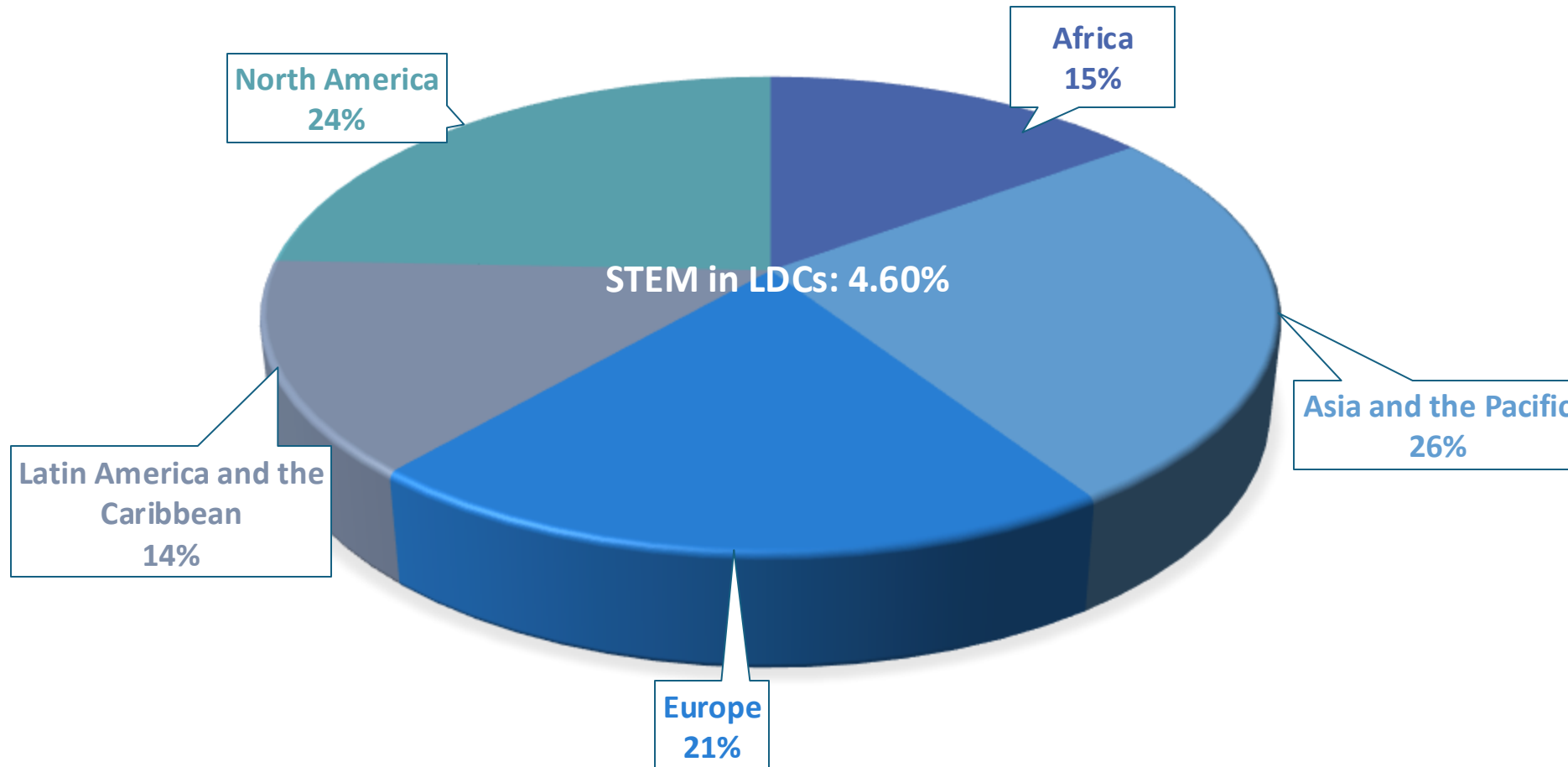
Proportion of STEM degrees in Africa (LDCs vs non-LDCs)

LDCs 23%

Non-LDCs 77%

N° of STEM in Africa	37030	54 countries
N° in non-LDCs	28611	22 countries
N° in LDCs	8419	32 countries

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Proportion of STEM degrees in Africa (LDCs vs non-LDCs)

By level of degree	N° of degrees	%
Non LDCs in Africa		
Postgraduate (7)	18778	66%
Undergraduate (6B, 6C)	9769	34%
LDCs in Africa		
Postgraduate (7)	4107	51%
Undergraduate (6B, 6C)	3976	49%

Proportion of STEM degrees in Africa (LDCs vs non-LDCs)

LDCs (undergraduate) 29%

Non LDCs (undergraduate) 71%

LDCs (postgraduate) 18%

Non LDCs (postgraduate) 82%

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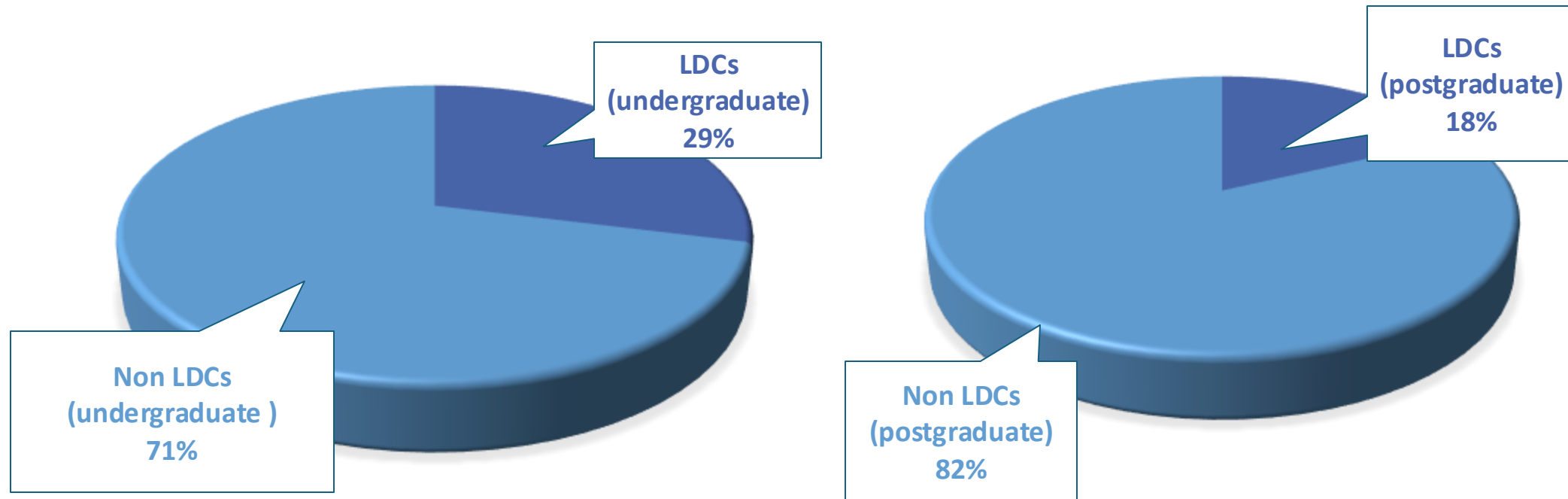
Countries in Africa with the largest n° of STEM degrees offered (Top 10)

Country	N° of degrees offered by HEIs
Nigeria	12752
Algeria	3648
South Africa	2657
Kenya	2544
Egypt	1459
Tunisia	1349
Morocco	1058
Tanzania	1048
Ghana	990
Sudan	988

Thank you!

Learn more:
WHED: www.whed.net
IAU: www.iau-aiu.net

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More about IAU's work on Digital Transformation:

Trine Jensen (t.jensen@iau-aiu.net)

1. IAU Policy Statement (2022)

Transforming Higher Education in a Digital World for the Global Common Good

...It is essential to build a humanistic, ethical, inclusive and purpose-based digital transformation of higher education for the global common good...

2. Monitoring trends and developments

- Global Surveys

- Monitoring trends

- Comparing results by region

- Raising awareness about changes and opportunities as well as challenges and inequalities to be addressed
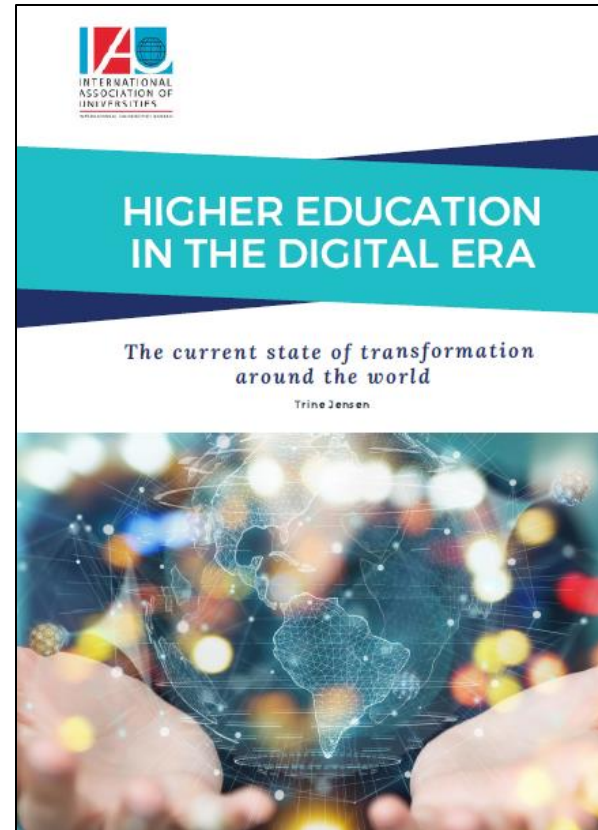
IAU 2020
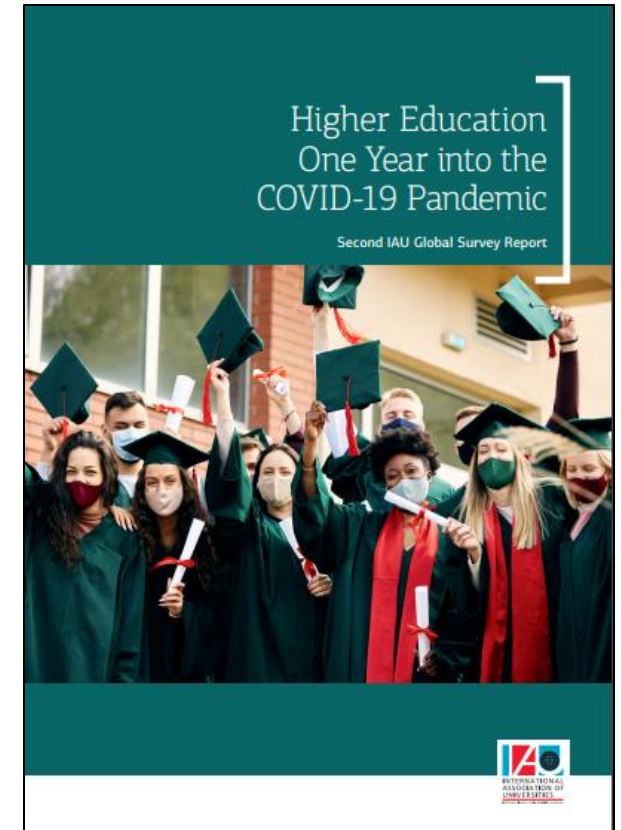
IAU 2022

Download the reports: iau-aiu.net/Publications

3. Peer-to-peer learning through international collaboration

Institutional Site Visits   Webinars   IAU Horizons