

Islamic republic of IRAN

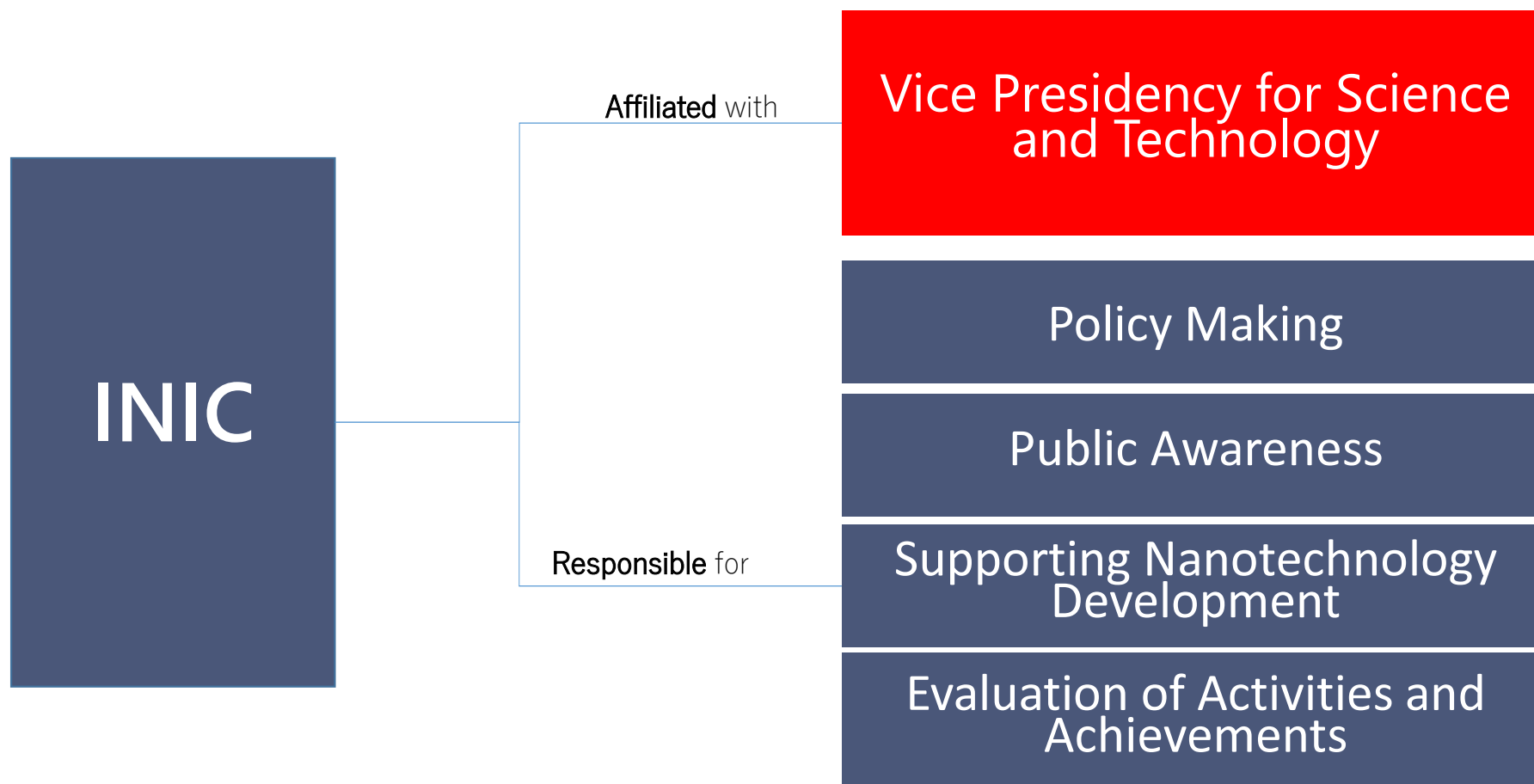
Iran Nanotechnology Initiative Council

Programs, Activities & Achievements

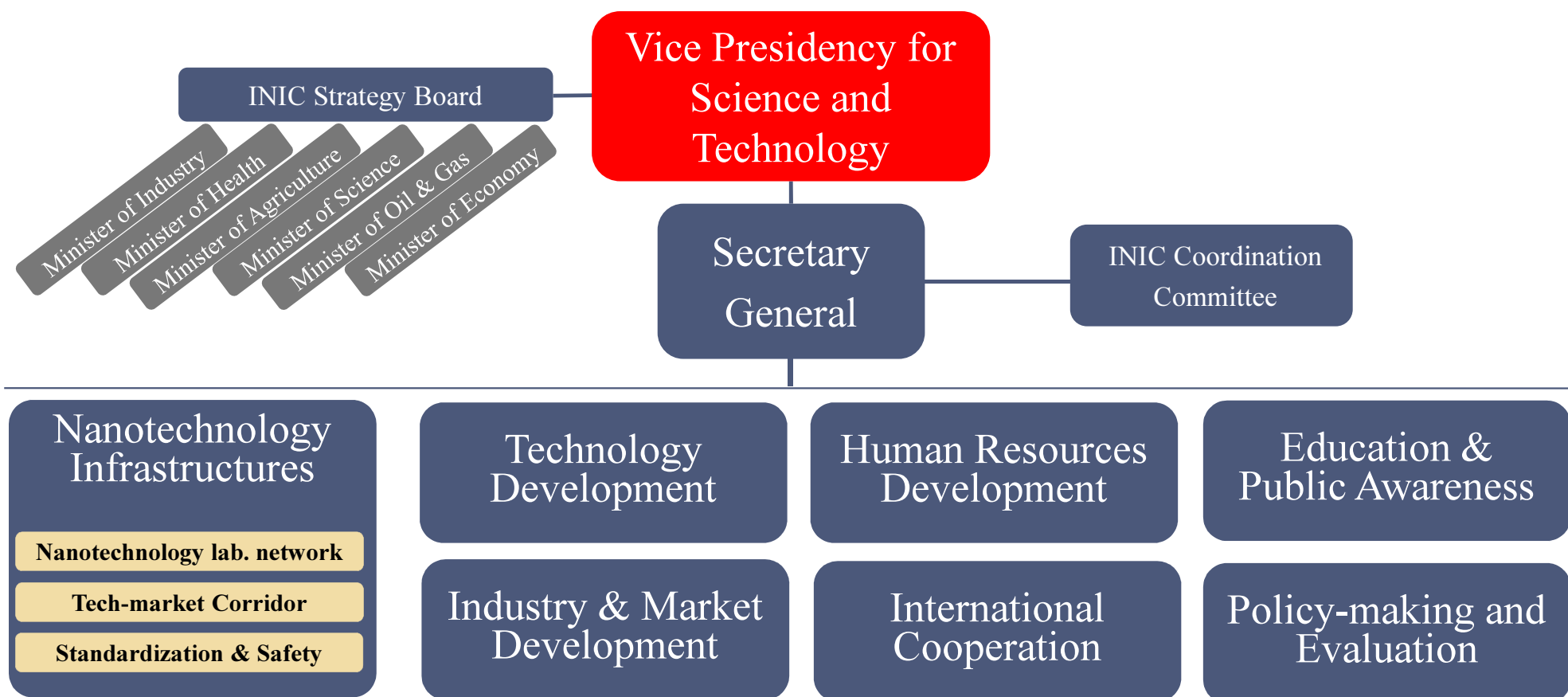


INIC

Ali Beitollahi
Director of International Collaborations and
Nanostandardization Departments
Iran Nanotechnology Initiative Council (INIC)
beitoll@iust.ac.ir



INIC Structure



INIC History

Launch of Future strategy

2006

Cabinet passed NT Program

2005

Establishment of INIC

2003

Nanotech. Policy Studies

2001

Future Strategy

1st future strategy

2006 - 2008

2009 - 2011

2012 - 2015

- Infrastructure
- Public Awareness
- Human Resources
- Science and Technology Development
- International Collaboration



2nd future strategy

2016 - 2018

2019 - 2021

2022 - 2025

- Industrialization
- Commercialization
- International Marketing
- International Collaboration



2006

2015

2025



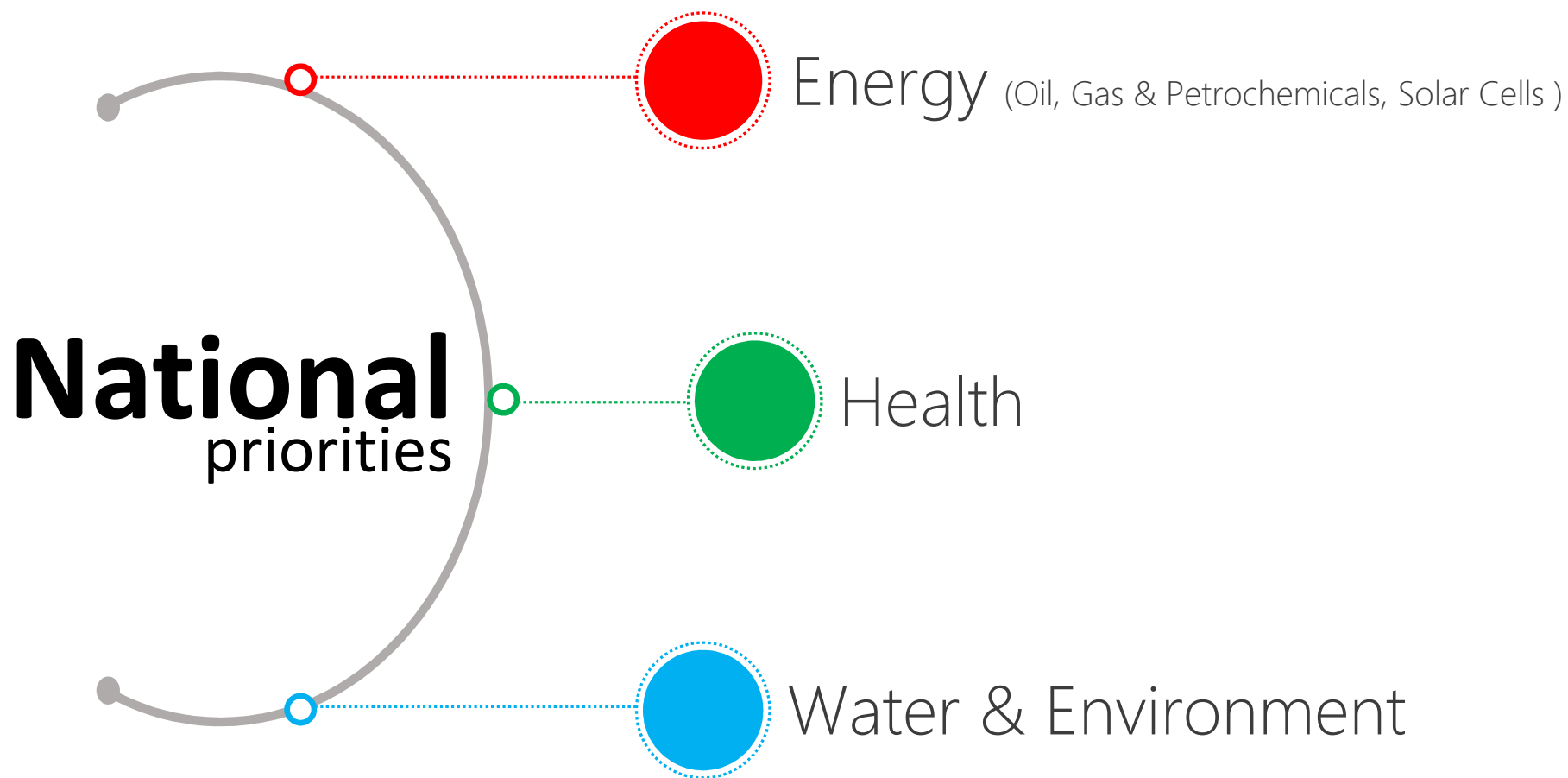
CREATION OF WEALTH

NANOTECH FOR SOCIETY

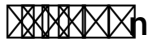
Through Responsible and Sustainable Development of
Nanotechnology

NT Policy Indicators





Sights of Iran



Public Knowledge Promotion

Student Nanotech Educational Exhibitions



Training **860,000** high school students by NANOCLUB

2008-2018

NANO Club

Web site (nanoclub.ir)

Multimedia (movie, Animations)

Book, Papers & Journals

Training workshop

Nano Olympiad

Educational Nano lab

Educational Exhibitions



Educational Nano Labs

83 Established Laboratories

400 planned for next 4 years

Establishing
Educational NanoLabs
for High School
Students

- STM
- Electro-Spinning
- Wire Electrical Explosion
- Desktop Sputtering
- Spin Coater
- Ultrasonic
- UV-Visible Spectrophotometer



TAVANA® Educational Nano Lab in China

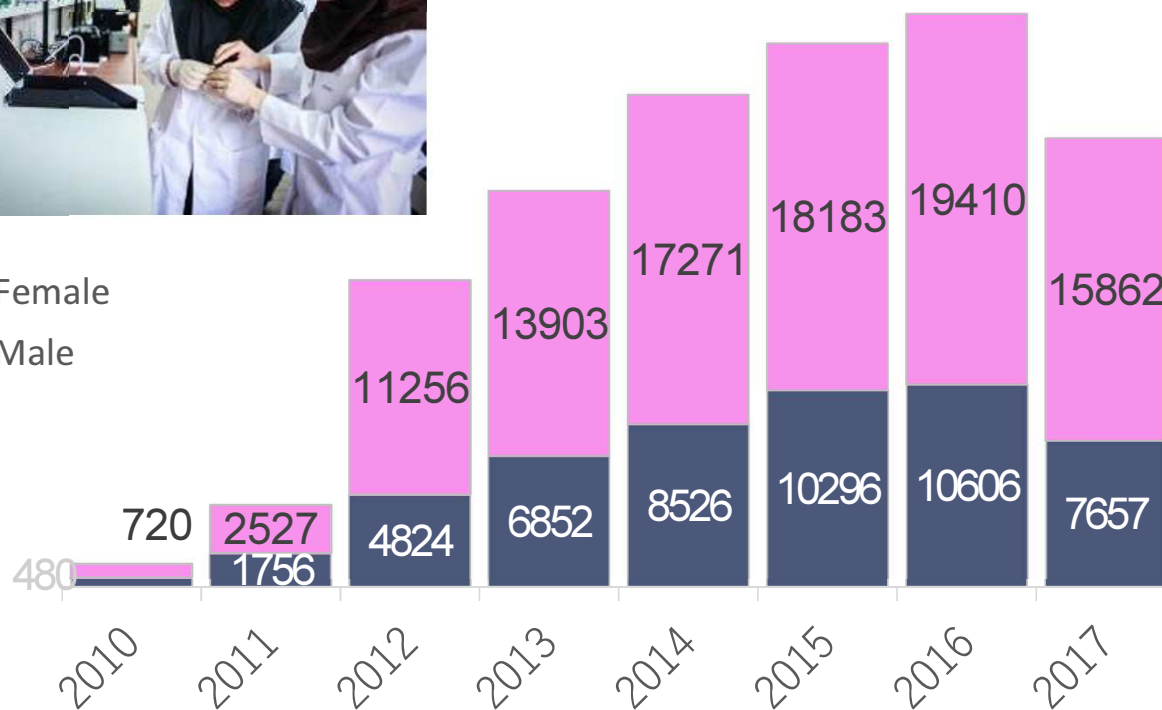


High Schools in Suzhou & Guangzhou

NANO – OLYMPIAD

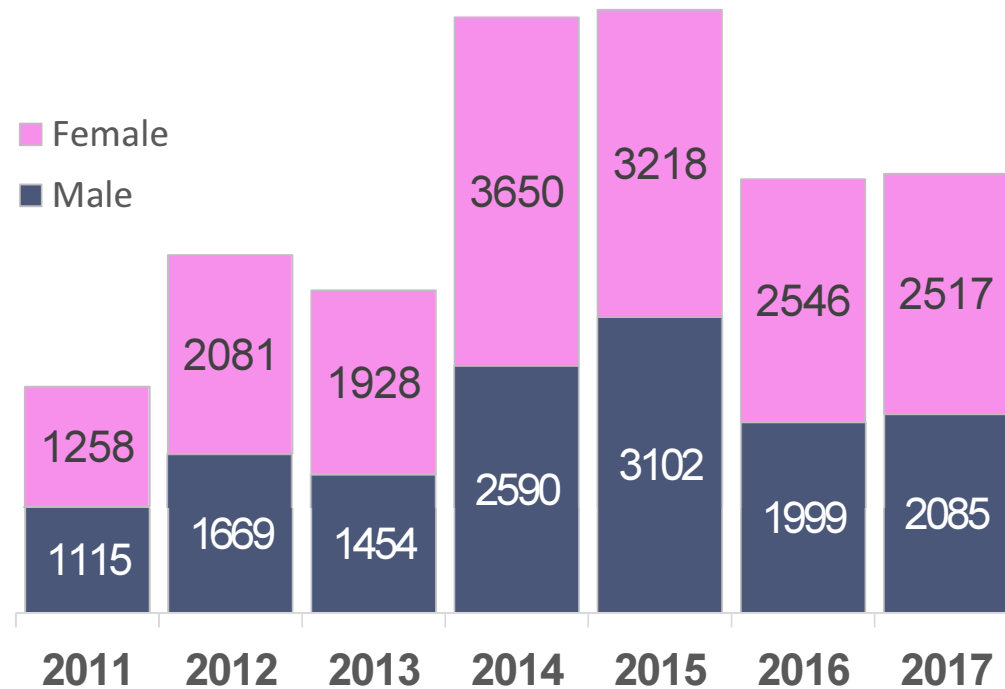


Female
Male



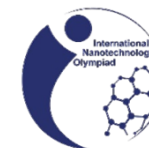
Nanotechnology Competition

(University Student)



International Nanotechnology Olympiad 2018

(www.nanoolympiad.com)



Iran

Russia

South Korea

Malaysia

Taiwan

3 teams from EU

**A Nano Challenge Event
aiming at Problem Solving**



Sights of Iran

Shiraz



Pespolis

Human Resources Development

Graduate Training Programs

66 Universities Engaged in
M.Sc. Programs

Chemical Engineering | Medicine |
Chemistry Physics | Polymer |
Biotechnology | Nano Electronics |
NEMS | Nano Materials | Textiles

23 Universities Running
Ph.D. Programs



Human Resources Development

Thesis

PhD: about **4200**
MSc: More than **20000**



Centers

More than **150** Universities
and Research Institutes



Experts

About **2000** Faculty Members



Sights of Iran

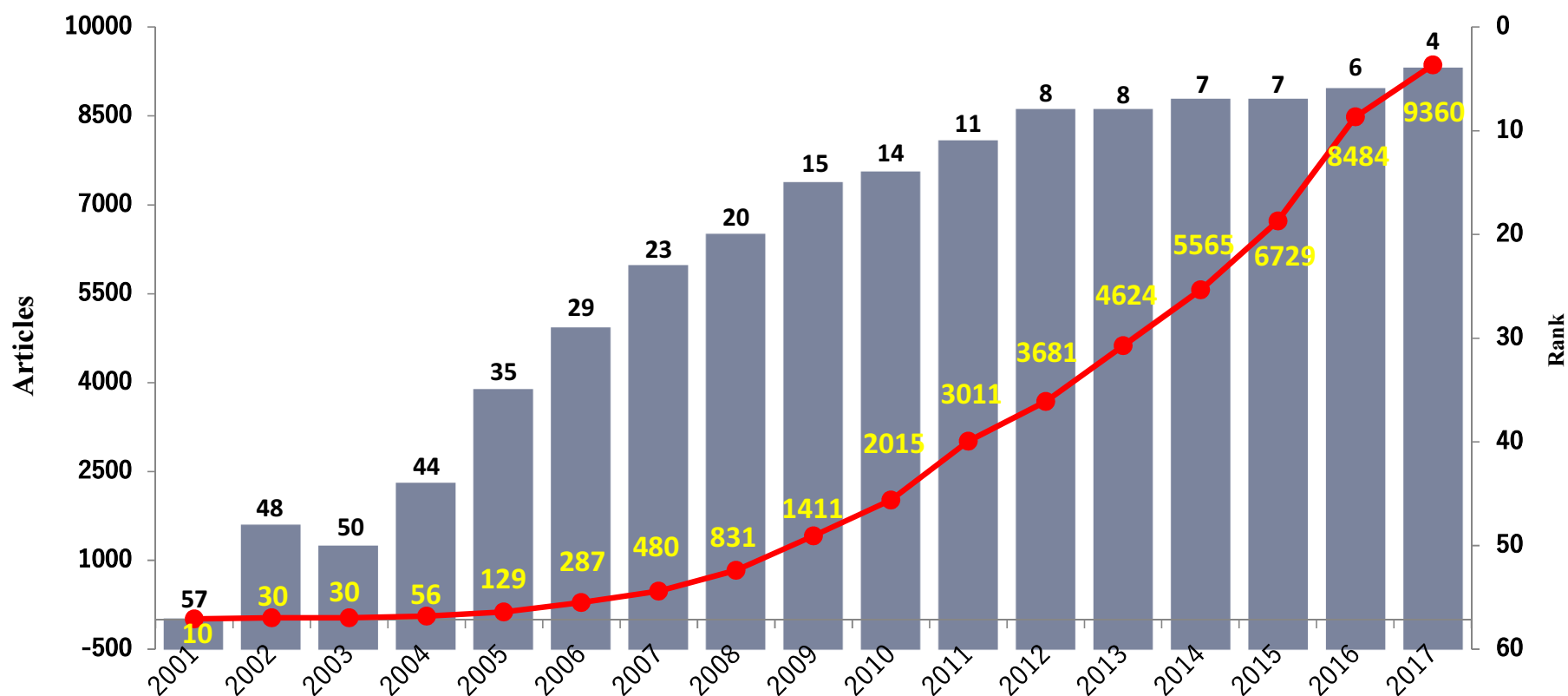
Ardabil



Sabalan

Science Generation; World Ranking

Iran's ISI Nano-publications (Ref: statnano.com)



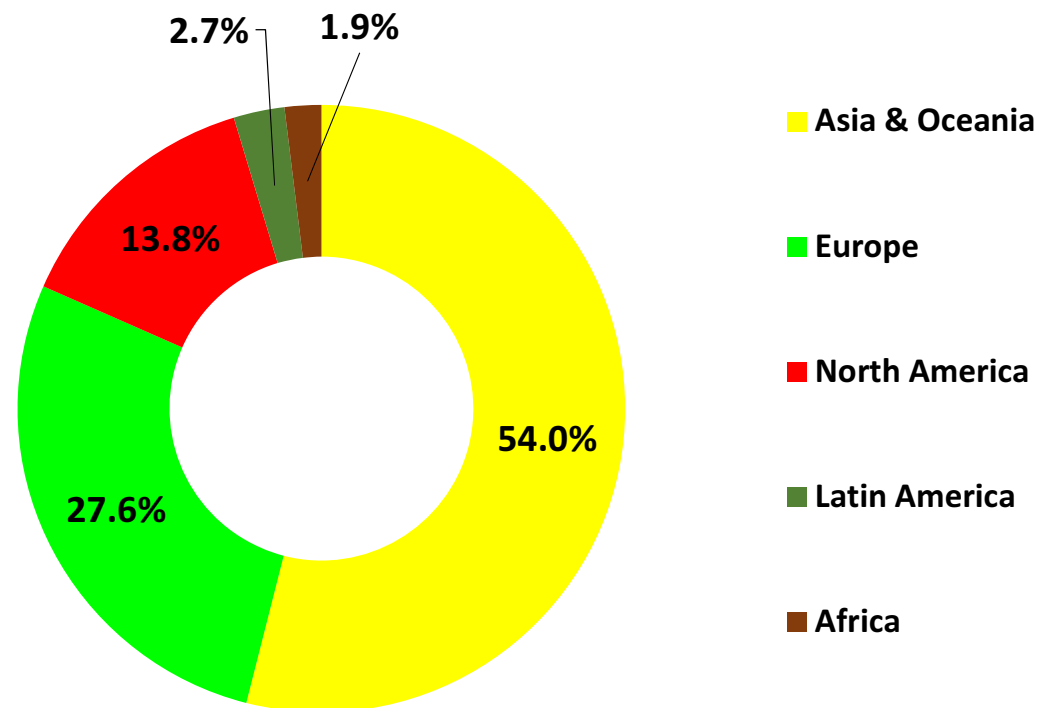
No. of ISI Articles (2017, Ref: statnano.com)

Rank	Country	Nano-articles	Share (%)	Rank	Country	Nano-articles	Share (%)
1	China	59198	36.43	16	Brazil	2948	1.81
2	USA	25281	15.56	17	Saudi Arabia	2921	1.8
3	India	13324	8.2	18	Poland	2582	1.59
4	Iran	9360	5.76	19	Singapore	2386	1.47
5	South Korea	9213	5.67	20	Turkey	2323	1.43
6	Germany	8836	5.44	21	Switzerland	2054	1.26
7	Japan	7691	4.73	22	Malaysia	1924	1.18
8	France	6002	3.69	23	Egypt	1892	1.16
9	UK	5801	3.57	24	Sweden	1877	1.15
10	Russia	5328	3.28	25	Netherlands	1778	1.09
11	Spain	4553	2.8	26	Pakistan	1728	1.06
12	Italy	4482	2.76	27	Belgium	1400	0.86
13	Australia	3924	2.41	28	Mexico	1361	0.84
14	Canada	3570	2.2	29	Czech Republic	1228	0.76
15	Taiwan	3111	1.91	30	Portugal	1114	0.69

No. of ISI Articles (July 2018, Ref: statnano.com)

2016				2017				2018			
Rank	Country	Nano-article	Share (%)	Rank	Country	Nano-article	Share (%)	Rank	Country	Nano-article	Share (%)
1	CHINA	51821	33.86	1	CHINA	59198	36.43	1	CHINA	39354	39.40
2	USA	24883	16.26	2	USA	25281	15.56	2	USA	14434	14.45
3	INDIA	12432	8.12	3	INDIA	13324	8.2	3	INDIA	8721	8.73
4	SOUTH KOREA	9274	6.06	4	IRAN	9360	5.76	4	IRAN	6026	6.03
5	GERMRANY	8795	5.75	5	SOUTH KOREA	9213	5.67	5	SOUTH KOREA	5624	5.63
6	IRAN	8484	5.5	6	GERMANY	8836	5.44	6	GERMANY	4892	4.90
7	JAPAN	7637	4.99	7	JAPAN	7691	4.73	7	JAPAN	4388	4.39
8	FRANCE	5895	3.85	8	FRANCE	6002	3.69	8	ENGLAND	3289	3.29
9	ENGLAND	5572	3.64	9	ENGLAND	5801	3.57	9	FRANCE	3133	3.14
10	RUSSIA	5156	3.38	10	RUSSIA	5328	3.28	10	RUSSIA	3048	3.05

Continental Distribution of Nanoscience (2017)



Sights of Iran

Shiraz



Qavam House



Tomb of Hafez



Tomb of Saadi

Infrastructure Development

Iran Nanotechnology Standardization Department

Established in **2006**

Nano standardization Committees at;

- Ministry of Health
- Ministry of Agriculture
- Dept. of Veterneary

Nano-Safety Network (2012)

80 Published national
nano standards

34 standards currently
under development

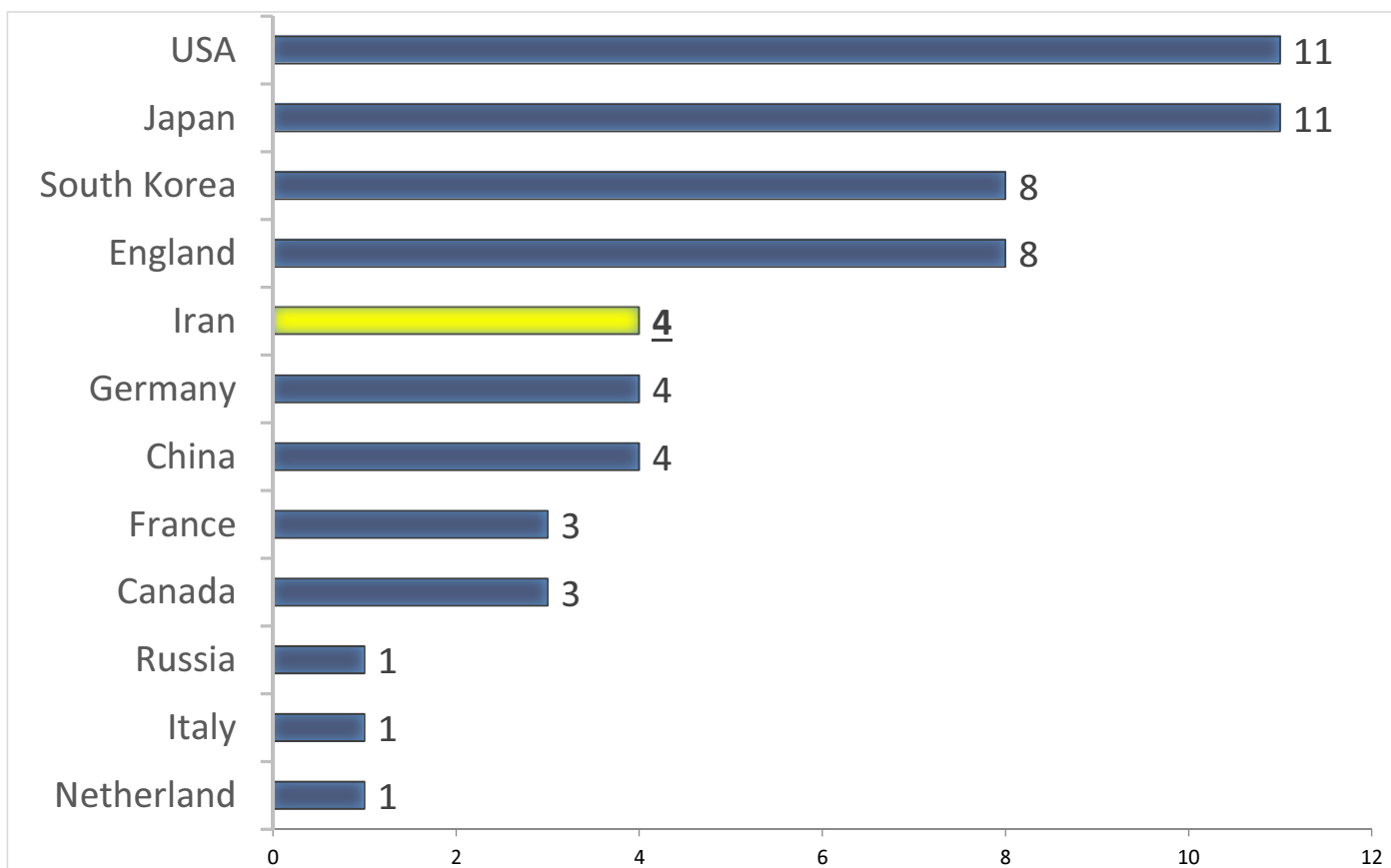
P-member of
the
ISO/TC229

ISO/TC 229
Nanotechnologies

4 Published international standards in ISO/TC229.(4 more in progress)



International Standards (ISO/TC229)



Main Strategies for Development of Laboratory Infrastructure

Design and Production of
Nanotechnology Instruments

150 Equipment by **44** Companies



Iran Nanotechnology Laboratory
(Network (INLN

1777 Equipment from **83**
Universities and Research Institutes



Sights of Iran

IRAN

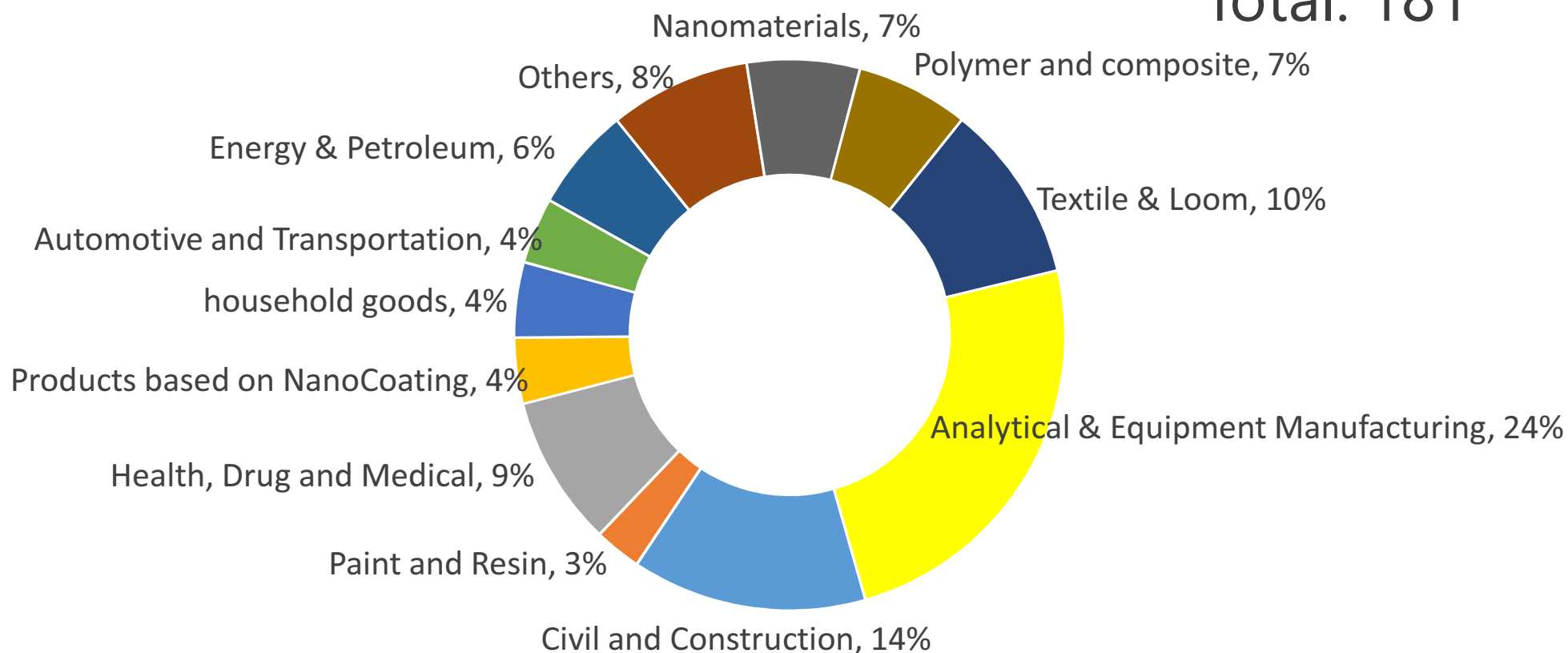


Dasht-e Kavir

Industrialization and Commercialization

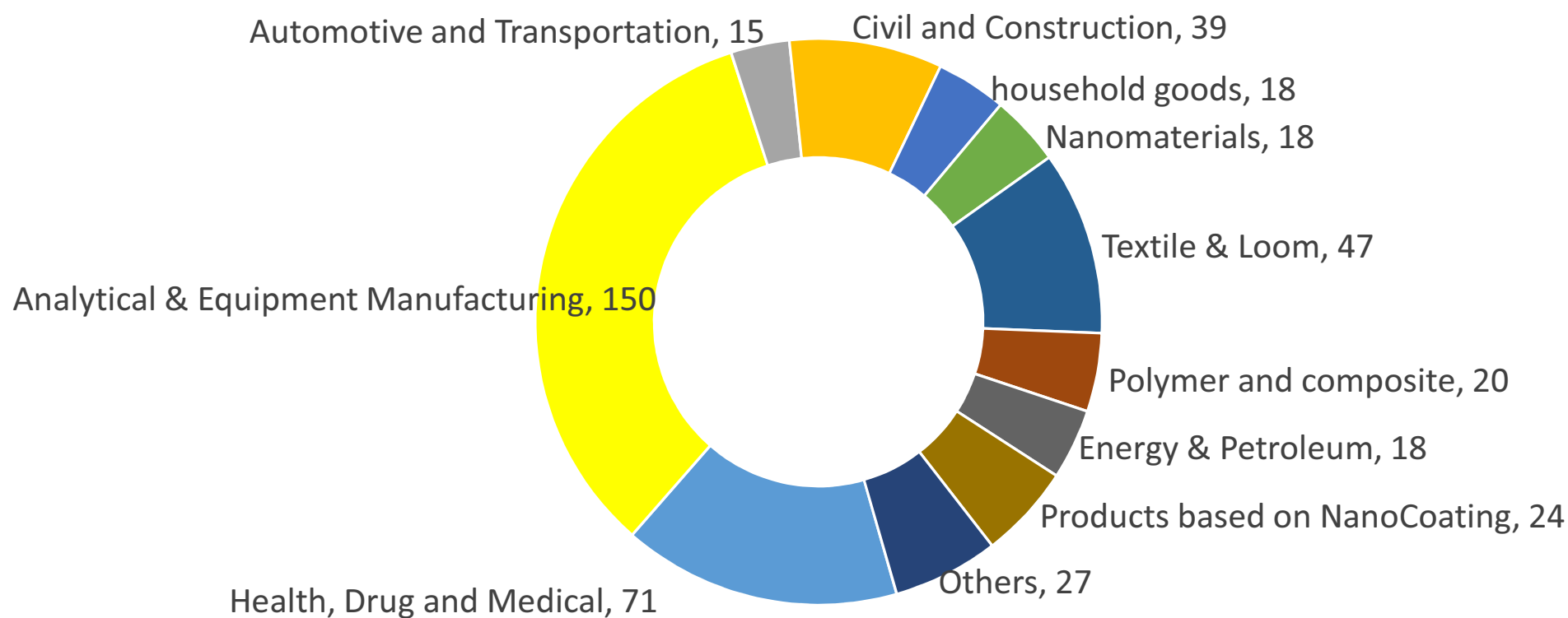
Companies

Total: 181



Nanotechnology Products

Total: 447



Drug, Medical & Water Companies



Construction, Laboratory & Industrial Companies





Automotive, Oil, Gas & petrochemical Companies



Paint & Home appliance companies





Export & Tech Exchange Offices

Current



China

- Suzhou
- Guangzhou
- Shanghai



Indonesia

- Jakarta



Turkey

- Istanbul

Next



Mexico



India



Brazil



Iraq

Tech Exchange Events

Malaysia

Armenia

South Korea

Indonesia

China



International Collaboration



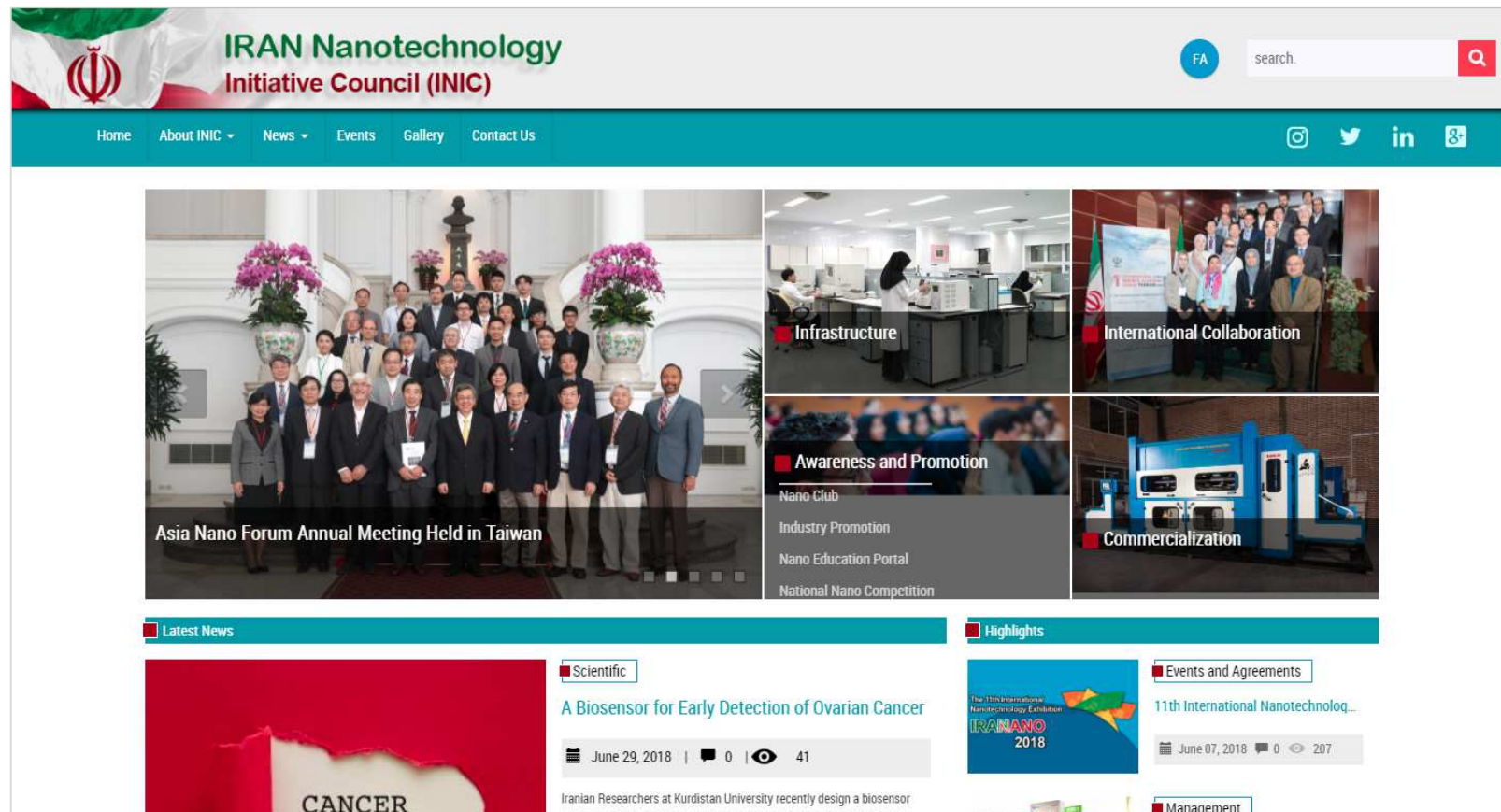
11th Iran Nanotech Festival & Exhibition

(13th Oct.2018)



www.festival.nano.ir

Websites: nano.ir



Thank you for your
attention

Damavand mount

nano.ir