

The logo for INVENT, featuring the word "INVENT" in a sans-serif font with a stylized orange and white lightbulb icon above the letter "V".The logo for ASRF (Association for Supporting Research and Innovation), with "ASRF" in large green letters and "SUPPORTING INNOVATION" in smaller green letters below it.

Post Event Report of ETM on

PROMOTION OF INNOVATION IN HIGHER EDUCATION AND INDUSTRY IN JORDAN

Project Manager:

Professor Fahmi Abu AlRub

Venue: Holiday Inn - Amman

October 17th, 2016

Time Line of the Electronic Town Meeting Event (ETM)

Welcome note By Dr. Ahmad I. Abu-El-Haija

The Director, National Erasmus+ Office – Jordan

Dr. Ahmad briefed the participants on Erasmus+ projects in Jordan and presented some of the success stories of the program and the future plans and projects for his office with the EU



Time Line of the Event

- Introduction on Erasmus + INVENT Project and on the current event By Professor Fahmi Abu Al-Rub the Project Manager and Coordinator .
- Professor Fahmi also presented the results of the surveys of the academia and the industrial sector in sight of the project objectives and results of the focus group meetings done before by the project team



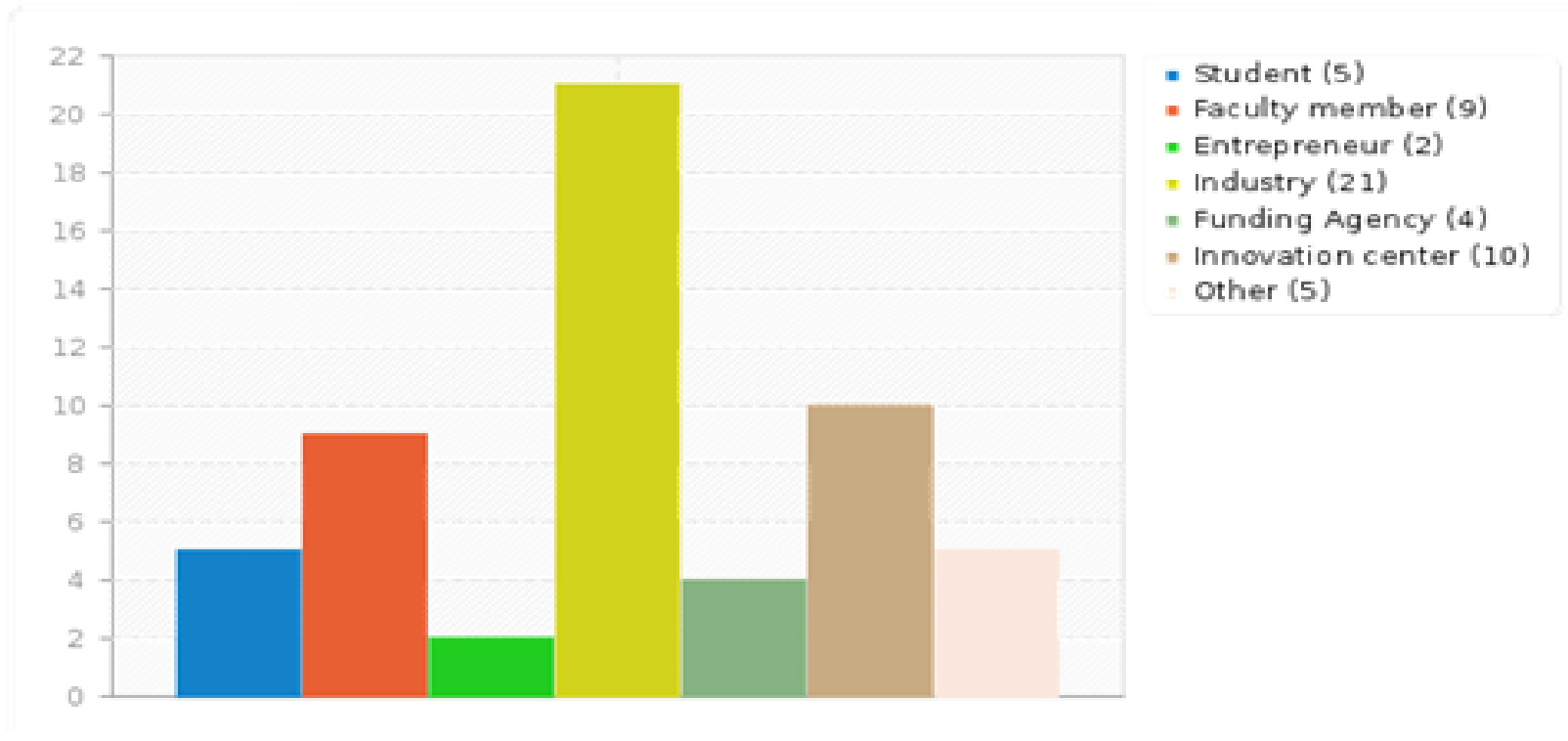
Time Line of the Event

- Innovation in Higher Education and Industry in Jordan presented by Dr. Fawwaz Z. Elkarmi. The Assistant secretary general of the higher council for science and technology (HCST).
- In his presentation Dr. Fawwas stated the problems that form the background of the project, motivations, the methodologies and the expected result of the project

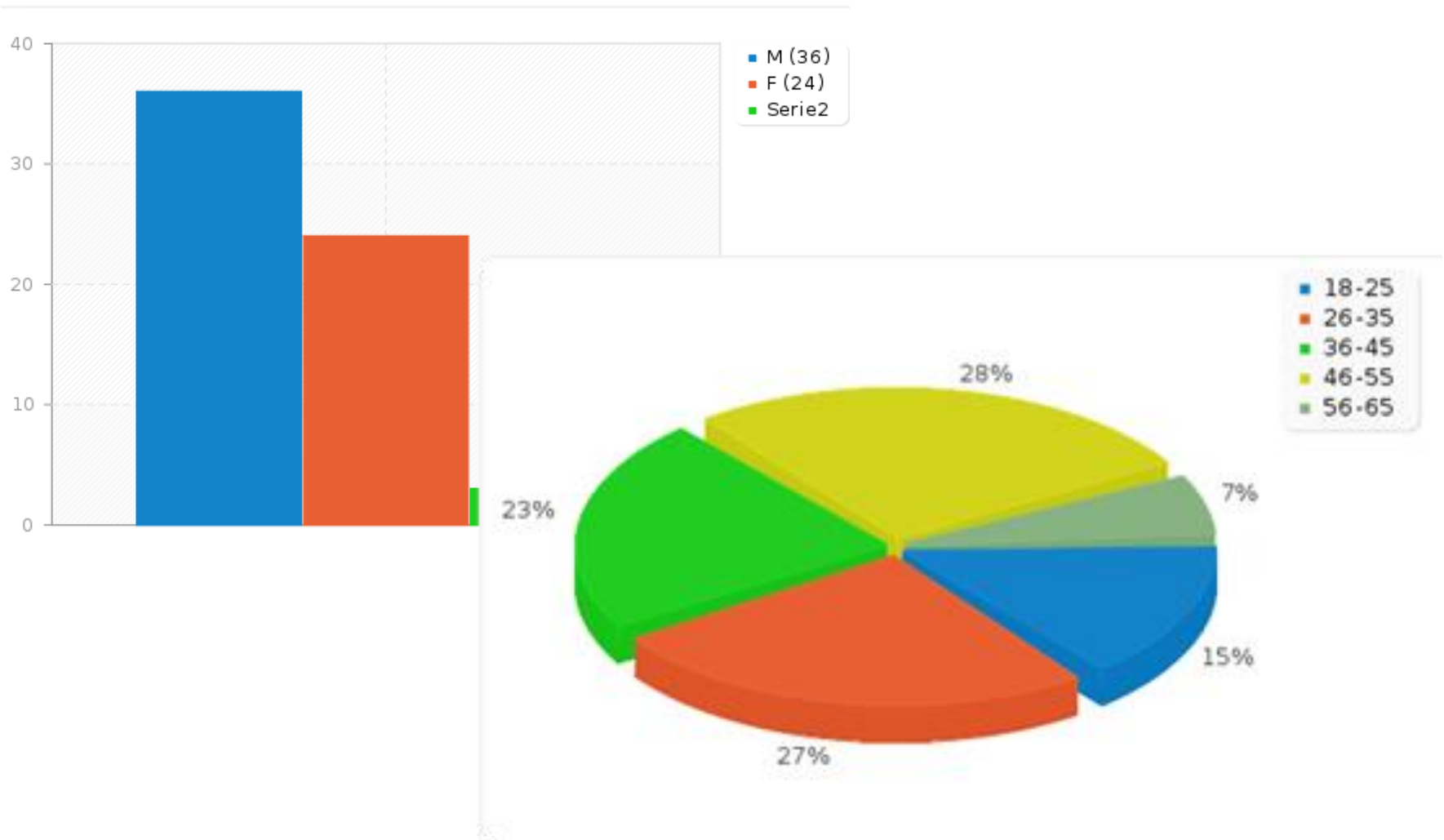


ETM Participants

- The invited participants represented most of the stakeholders of the project
- their background is presented in the next figure



Age and Gender of the Participants

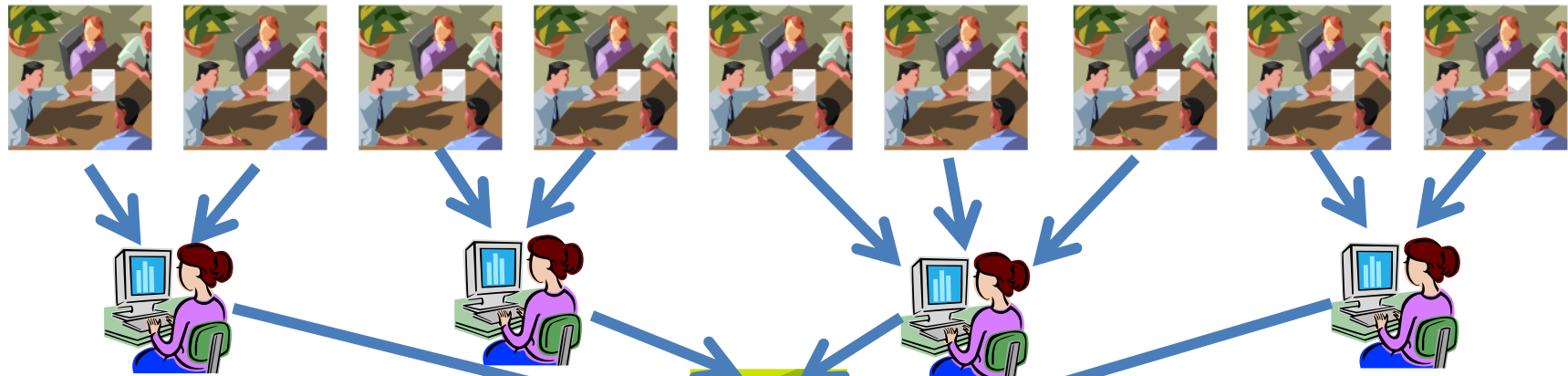


ETM Discussion sessions

- Electronic Town Meeting (ETM) is a community forum that gives participants an opportunity to deliberate their ideas and opinions with the help of digital technology.
- ETM is the successor Town Meeting, which was one of direct democracy forms used since the seventeenth century.
- Our ETM event was divided into 5 discussion sessions.
- And the participants were allocated to 10 Separate discussion tables, participants on each table should be from different background to heat the debate.

ETM Methodology

In the beginning a piece of information on the subject of discussion is given to the participants by the **EVENT Manager**. An experienced **Facilitator** runs the discussion on every table and a **Rapporteur** records the events of the debate immediately on a computer linked to forum's computers network.



the **Theme Team** collect instant feedback from 2 or 3 rapporteurs and edit it without interfering, send their reports to the **Theme Team Manger** who collect it and send it to a **Specialist Editor** who edit the instant report

Report the discussions, views, problems, solutions, suggestions and vote results

ETM live polls

- Each session has different debate title but in the same time related to general theme.
- During each session the participants are asked to express their opinion in electronic polls related to the session.
- Polls elaborator announce the result at the end of voting process.



ETM Discussion sessions

- At the end of each session the Theme Team Leader briefs the participants on the main points of collective discussion, so all the participant become aware of the debate on the different tables.



The Instant report

- After the last session the **Event Manger** summaries the **Instant Report** to the participants together with the polls results and the main conclusions and outcomes of all debates and discussions .



Erasmus+ Invent Event

The ETM's INSTANT REPORT
On
PROMOTION OF INNOVATION
IN HIGHER EDUCATION AND
INDUSTRY IN JORDAN

Venue

Holiday Inn - Amman

October 17th, 2016

Erasmus+ Invent Project

Project Coordinator: Professor Fahmi Abo AlRub

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Conclusions and outcomes



INVENT

ASRF
SUPPORTING INNOVATION

Promotion of Innovation Culture
in the Higher Education in Jordan

The first discussion session: How can we help Science to go out of labs to the Market



The Conclusion of the 1st session

- **The participants give their view about How can we help Science to go out of labs to the Market.**
- **The establishment of Innovation and technology transfer centers to link researchers with companies , bridge the gap between the stakeholders and develop their mutual relations and interests in organized way.**
- **The audience has suggested a few points that contribute to the development of this relationship, for example, the factories should define their problems and priorities and not to wait for the University to do that for them**
- **Supporting graduate student and participation of industry projects , and to focus their research to the applied scientific research.**
- **Academic promotion should also be linked with the basic problems facing the economy and the industry, such as water or energy.**

Some of the difficulties from the participants' point of view

- **The absence of effective national center that defines the needs of the industry and forms research units to solve the problems with the help of experts from universities and industry and unify the current individual efforts.**
- **Bureaucratic boundaries that limit the cooperation between the public and private sector**
- **The disclosure of information protocols in some industries may cause a lack of cooperation and information from the industry**
- **Lack of academic and student awareness of industrial needs and of business entrepreneurship**
- **Weakness of the universities abilities to attract investors for entrepreneurial projects**
- **The lack of trust between the academic and the industrial sector**
- **Lack of Awareness to the practical side during the years of the study**

Some of the Recommendation from the participants' point of view

- **The universities should adopt the marketing of their researchers innovative ideas and projects**
- **The presence of industrial cooperation offices in universities that help the students and guide them through the process of there research in sight of the national industrial priorities and problems**
- **Connect the research national strategic plan and research interest in national industrial sector**
- **The creation of a unified database of the problems/ chances in the industrial sector to help researchers identify their research priorities.**
- **The introduction of the concept of innovation in the curriculum should not be limited to the University students but also in elementary and secondary school**
- **Focusing on job training, where students are trained for the purpose of employment**

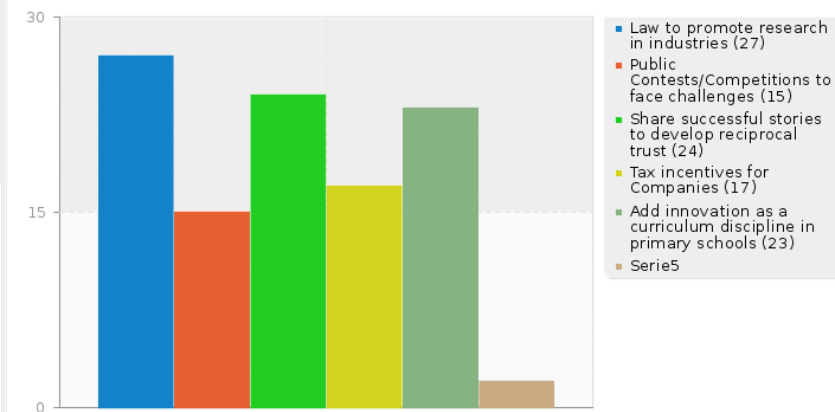
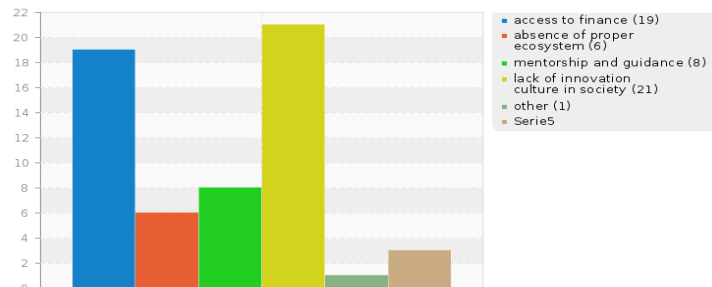
Related Polls

What is the biggest challenge for Jordanian innovators? (max 1)

How can we fill the gap between academic research and industry? (max 2 options)

Answer	Count
access to finance	19
absence of proper ecosystem	6
mentorship and guidance	8
lack of innovation culture in society	21
other	1
Not completed or Not displayed	3

Answer	Count
Law to promote research in industries	27
Public Contests/Competitions to face challenges	15
Share successful stories to develop reciprocal trust	24
Tax incentives for Companies	17
Add innovation as a curriculum discipline in primary schools	23
Not completed or Not displayed	2



The 2nd discussion session: How to attract investors to invest in Science and Innovation in Jordan?



The Conclusion of the 2nd Session

- The attractive and clear presentation of innovative ideas was chosen by many to be the best way to convince the financier that science is a secure investment.
- Addressing the most important problem , such as the scarcity of water, will encourage the investor to provide funding for innovative ideas
- Provide guarantees and honest risk analysis by the owner of the idea to the investor in order to encourage him to invest his money in the idea
- Poorly implemented projects and unreliable results will have a negative effect on the reputation of whole sector not only the unsuccessful projects, therefore, the proposed Innovation and technology transfer centers may help with auditing the Research proposals supervise the implementation process until the realization of research's results
- Intellectual property protection is very important to both the researcher (innovators) and investor.

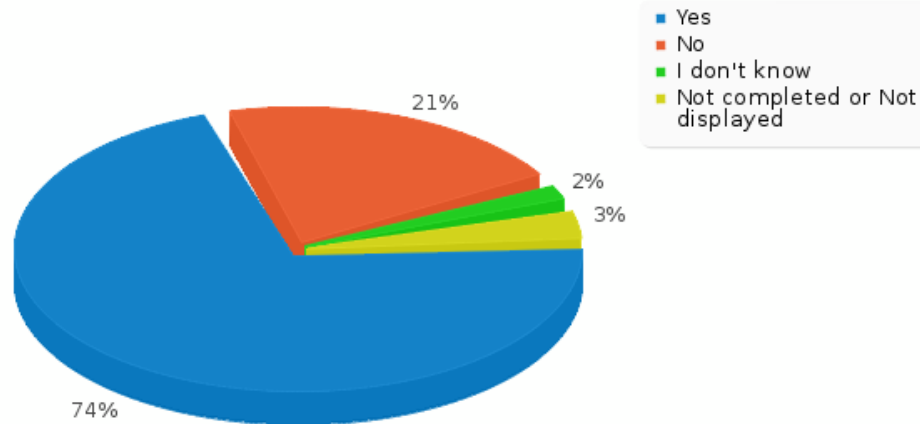
Recommendations about Investment Attraction

- **Participants made many suggestions which can be grouped in five themes**
- **Promotion of success stories to encourage investment in the creative ideas**
- **Training students to write project proposals , work plan, schedule and to do feasibility study**
- **The development of current laws and regulation to promote the investment in innovation and creativity (more tax incentives as an example)**
- **Funding and financing**
- **Define the possible stakeholders and enhance communication between them**
- **Strengthen cooperation between the related parties and stakeholders and raise the awareness of their mutual interests**

Related Polls

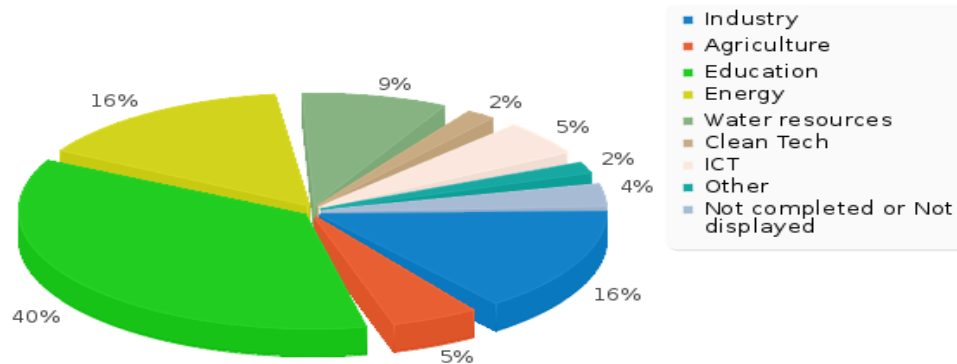
Do you think that R&D is considered a major factor in the growth of the industry in Jordan?

Answer	Percentage
Yes	73.77%
No	21.31%
I don't know	1.64%
No answer	0.00%
Not completed or Not displayed	3.28%



Which sector innovation should be a priority for Jordan's sustainable development?

Answer	Percentage
Industry	16.36%
Agriculture	5.45%
Education	40.00%
Energy	16.36%
Water resources	9.09%
Clean Tech	1.82%
ICT	5.45%
Other	1.82%
No answer	0.00%
Not completed or Not displayed	3.64%



The 3rd discussion session: How We Measure Innovators and Scientist qualification for Jordan Development



The Conclusion of the 3rd Session

- **Varied view points was expressed by the participants about the measurement process , but many of them share the idea that creativity and innovation are hard to be measured.**
- **In the academic world the measures are the number of published research paper, citations, and impact factor. While for the industrialists; the research that turns into profitable products seems to be the dominant the tool of measurements.**
- **The participant opinions were splatted vertically depending on there background, never the less, many of them agreed that there should be a mechanism to evaluate the performance and the contribution of innovators.**

Suggested Performance indexes

- **The number of scientific research projects that have been implemented and commercialized**
- **The number of spin-out company that resulted from innovative research projects**
- **Sales, economic and added value added of registered patents**
- **The number of patents that have been converted to business**
- **Number of Jobs created as a result of innovative research projects**
- **The attracted Foreign Direct Investment through the implementation of innovative ideas or innovative research projects.**

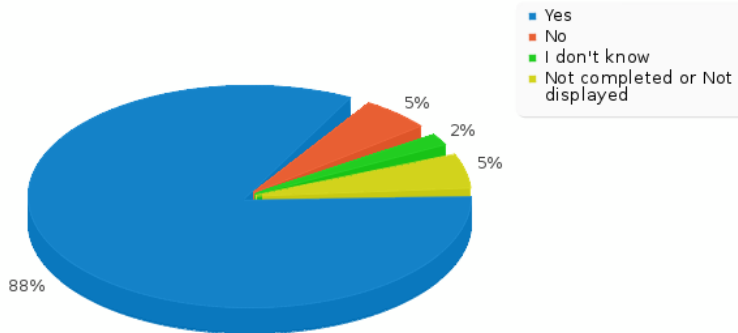
Suggested Performance indexes

- **Benchmarking the quality and efficiency of local innovative research projects with international projects.**
- **The number of joint research between the institutions of civil society, universities and the industrial sector**
- **The number and impact of problems solved by innovative research**
- **The creation of data base for applied research centers outputs will ease the impact measurement.**
- **World ranking of scientific institutions and research centers**
- **The socio-economic impact measurements tools**

Related Polls

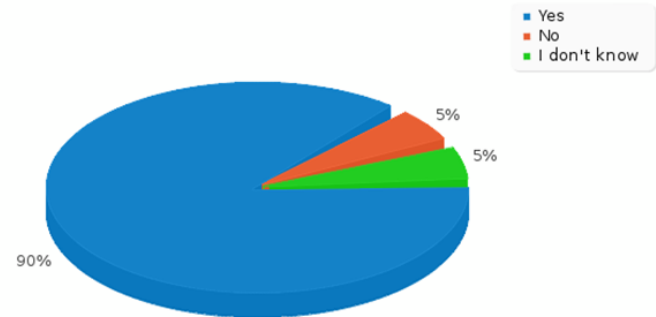
Do you think we should develop new criteria to evaluate research for promotion

Answer	Percentage
Yes	87.50%
No	5.36%
I don't know	1.79%
No answer	0.00%
Not completed or Not displayed	5.36%



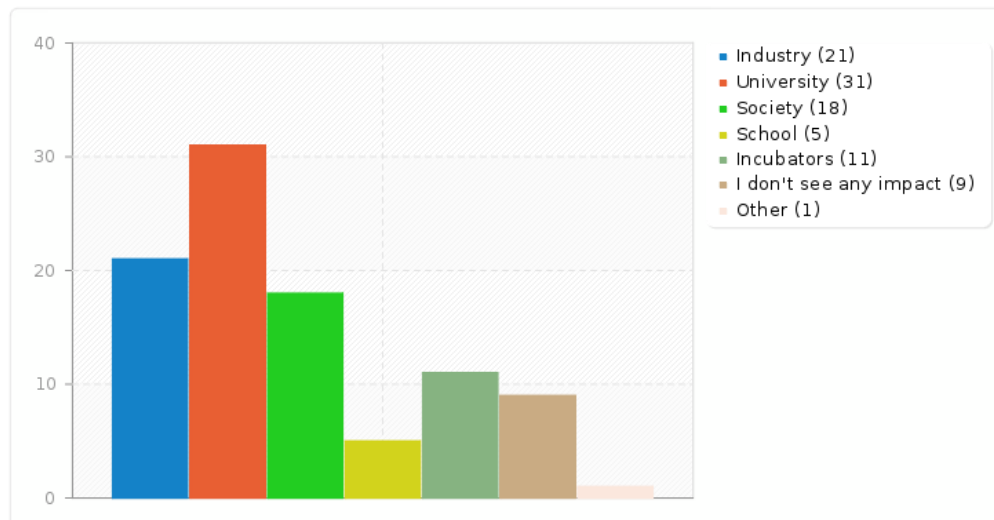
Do we have qualified innovators and scientists in Jordan?

Answer	Percentage
Yes	89.66%
No	5.17%
I don't know	5.17%
No answer	0.00%
Not completed or Not displayed	0.00%



Where we can see the impact of innovation centers NOW (max 2 options)

Answer	Count
Industry	21
University	31
Society	18
School	5
Incubators	11
I don't see any impact	9
Other	1



The 4th discussion session: How can we foster women opportunities for entrepreneurship in Jordan?



The Conclusion of the 4th Session

- Many of the participants stressed the importance of strengthening the role of women on the map of entrepreneurial business in Jordan and pointed to the need to strengthen confidence in women and give them equal opportunity to compete, and to provide more opportunities for women entrepreneurs and help them to reach success.**
- At the same time some participants disagreed on the idea of the allocation of Innovation centers for women only, but instead, their role must be strengthened so that they have equal opportunities with men in all Innovation centers.**

Tools of Foster as suggested by the participants

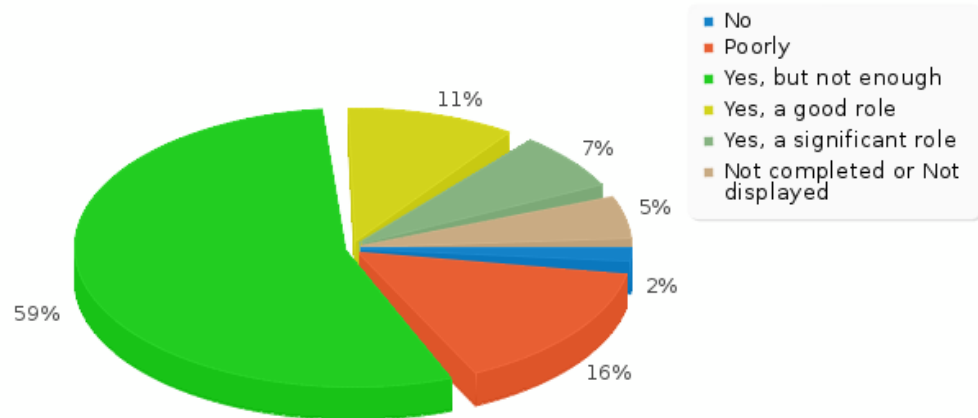
The suggestions can be summarized under the following themes:

- **Providing Financial support and funding.**
- **Providing Social support.**
- **Development of laws and regulations governing the employment of women and activating the existing laws in order to provide an appropriate environment that promote innovation and creativity**
- **The promotion of local success stories to motivate women to take a step in the area of entrepreneurship**
- **Rise of awareness of women and their communities of the importance of women's work**
- **Capacity building for women through courses and training**

Related Polls

Do you think woman in innovation and entrepreneurship plays a role

Answer	Percentage
No	1.79%
Poorly	16.07%
Yes, but not enough	58.93%
Yes, a good role	10.71%
Yes, a significant role	7.14%
No answer	0.00%
Not completed or Not displayed	5.36%



The 5th discussion session: How Governmental intervention can play a stronger role in raising public R&D and stimulating private R&D?



The Conclusion of the 5th Session

- **Participants pointed out that government intervention has a significant impact on funded research projects which may facilitate or impede them.**
- **Many participants stated that the Government should update the law of scientific research and redraft some other related laws and regulations (tax law and investment fund law) to promote the process of research, development, production and innovation, especially in the manufacturing sector.**
- **Enforcing the laws that support the universities.**

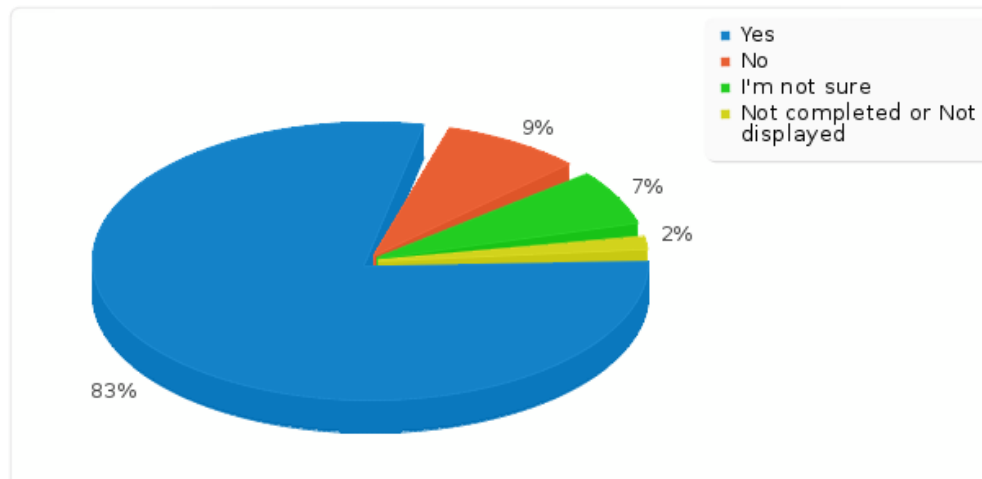
The Conclusion of the 5th Session

- Government should participate in marketing the outputs of innovative scientific research and to provide financial support from state budget to support research and innovative projects and focus on supporting start-ups business**
- Modernizing the educational curriculums to stimulate the interest in creativity and innovation among both children in schools and Students in Universities.**
- Supporting patents registrations.**

The Participants Opinion on ETM

Do you recommend the ETM methodology upcoming strategies and roadmaps (based on stakeholders' engagement)?

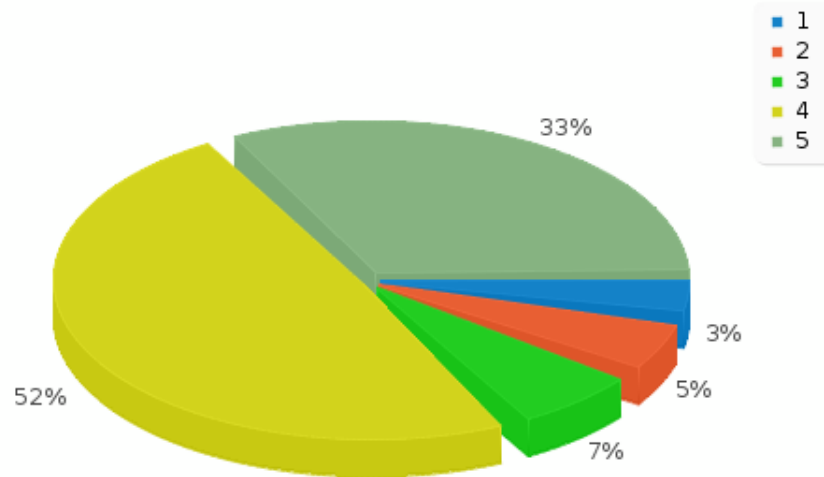
Answer	Percentage
Yes	82.76%
No	8.62%
I'm not sure	6.90%
No answer	0.00%
Not completed or Not displayed	1.72%



How do you rate this methodology and the quality of today's meeting?

Over All rate =
(4.07/5)
85% rated the
event very
good (4 out of
5) or above

Answer	Percentage
1	3.33%
2	5.00%
3	6.67%
4	51.67%
5	33.33%
No answer	0.00%
Not completed or Not displayed	0.00%



Notes on the Opinions and Recommendations of ETM

- The opinions of the participants , despite its variations, emphasize the important role of Centers for Transfer of Innovation (CTIs) as a foster and regulatory body.**
- The participants have a different prospective regarding the role, expectations and priorities of the CTIs.**

Notes on the Opinions and Recommendations of ETM

- Many recommendation intersect directly or partially with the specific objectives of INVENT Project.**
- Due to the ETM methodology used in the event, and the variation in the backgrounds of the participants; it is very unlikely that the organizers can steer the opinions, and they have very little impact on the course of debate.**

Q&A

Thanks for your attention

