Strengthening University-Industry Interaction Conference

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Strengthening University-Industry Interaction Conference
STEP Project

Innovation-oriented agement of knowledge at Higher Education Institutions (HEIs) has become a critical issue to respond to the global challenges of increasing employment opportunities and socio-economic development. Within this aim, enhancing cooperation between university and industry is high on the agenda of policy-makers and HEIs around the globe.

The situation is particularly demanding in Palestine, where the specific local and political conditions have a direct impact on the difficulties regarding employment and economic development.

STEP identifies a clear need for action in Palestine to boost the process for entrepreneurship opportunities towards economic development and employability. With the goal of improving conditions for quality growth and jobs, the project will stimulate the university-enterprise cooperation culture in Palestine, by promoting good practice for setting internal-interfaces in universities, creation of capacities in human resources, promoting coherent information and communication strategies amongst the universities’ communities and within the local business environment. It will also provide necessary strategic input for the creation of long-term partnerships and collaborative research with enterprises.
Conference Concept

A unique opportunity to share, learn and network

Learning, making new and developing existing contacts as well as having a good time, gathering new knowledge and insights, learning new concepts, are highly interlinked aspects of a conference. The STEP Strengthening University-Industry Interaction Conference is focused on bringing these aspects together, resulting in a positive influence on each other and a maximization of the participants’ conference experience.

In addition, the various formats of communication, knowledge exchange and discussion have their individual advantages and should thus be integrated to get the most value out of a conference. Therefore, the conference will feature keynote speakers, parallel tracks. The conference will also include a wide variety of social interactions.

Strengthening University-Industry Interaction Conference is a national conference meant to be the main building block of the development through the integration between universities and industry. Leading to a brighter future where society owns its power through developing its products and fulfilling its own needs independently and sustaining outputs through pushing towards a suitable eco-system and medium for such collaboration....
Conference Goals

» Identifying the impact of academia on society from both economic and social perspectives and tools to assess this impact.

» Bringing together stakeholders working on scientific research, innovation and industry in Palestine and in the region to develop a shared vision on collaboration.

» Developing “a common area of dialogue” and strengthening the relationship between universities/research institutions and industry in general and on an individual basis between researchers and professionals in industry/business.

» Highlighting and supporting the existing mechanisms to achieve cooperation between the university and industry such as technology transfer and commercialization offices, technology incubators, and entrepreneurial support centers and others.

» Sharing different experiences, successes and failures (locally, regionally and globally) in this area.

» Discussing the policies, laws and regulations governing industry-academic relationship and potential modifications.

» Engaging the media in highlighting the importance of research and innovation in economic and social development and the value of strengthening university-society relationship.
Key Benefits

» Increase knowledge on how to extract the full value of university-industry interaction, how to foster collaborative innovation in firms and how to create an entrepreneurial university

» Develop skills through the conference’s executive education program

» Meet and network with those facing similar challenges

» Develop partnerships and projects with other conference participants through project development sessions

» Call for papers, presentations, workshops, tracks, posters

The STEP-International Conference - Strengthening University-Industry Interaction Conference will be a national meeting and discussion forum for practitioners and researchers on university-industry innovation and entrepreneurial universities, where theory and practice are equally emphasized in the program.
Sub-themes

Sub-themes include, but are not limited to:

1. **Innovation in Practice**

   While the technological frontier is advancing at a fast pace and innovations abound across all fields, a large share of the global population remains excluded from this prosperity. Notwithstanding progress, more than 40 percent of the world population still lives under US$2 per day (Bottom of the Pyramid- BOP). Such inequality is gradually leading to a rising global need and interest in promoting innovations in products (goods and services) which address the needs and improve the welfare of the excluded due to poverty, handicap or location.

Universities & business: their roles in regional innovation

Tools & methods for Innovation

The role of entrepreneurs in promoting and sustaining innovation

Measuring the impact and level of innovation

Approaches towards creativity & idea generation

Research & innovation in the framework of international cooperation
2. **Student & Academic Entrepreneurship / Entrepreneurship Education**

The specialization in entrepreneurship allows students to develop the knowledge and skills necessary to take a leadership role in small and entrepreneurial business. Students in this specialization will be able to gain a broad knowledge of entrepreneurial business issues built upon entrepreneurially-focused research in the core business disciplines, including accounting, business law, finance, management, and marketing. The program includes both foundational coursework as well as experiential assignments in which the students work with entrepreneurs to solve real business decisions. This specialization will help broaden the students’ perspective beyond corporate management and enhance their employment prospects by increasing their attractiveness to entrepreneurial firms.

Teaching the entrepreneurs of the future

Training, coaching and start-up support

Stimulating entrepreneurial mindsets, attitudes and creativity

(Joint) Curriculum development for innovation and entrepreneurship

3. **University-Business Cooperation (UBC)**

UBC is the collaboration of university and business with the support of government for mutual and societal benefit. If UBC is understood as transactions between higher education institutions (HEIs) and business for mutual benefit, fostering UBC and extracting its value can help universities to face the problem of decreasing public funds,
help businesses to gain and maintain their competitive advantage in today’s dynamic international markets, contribute to the economic development at regional and national level as well as meet the demands of the labor market to provide more relevant knowledge and skills. In this context, successful UBC creates mutual benefit for all parties involved, and wider, to society.

Supporting mechanisms (strategies, structures and approaches) towards UBC

Dynamics of knowledge networks and partnerships

Incentives for University-Business Cooperation

Corporate Relationship Officers in UBC

Measuring the impact of interactions and partnerships

4. **Knowledge and Technology Transfer**

Technology transfer activities allow the leading-edge research and knowledge of the University to get out of the labs and into the commercial sector where it can be further developed and transformed into new treatments, medicines, products, etc. Technology transfer activities can potentially benefit millions of people. It would therefore be unethical for a University, and especially for one that excels in energy and water, not to actively promote and encourage efficient technology and knowledge transfer.

Start-ups, spin-offs, licensing – bringing knowledge to the market
Incubators and Science Parks
Knowledge transfer offices and their management
Science-to-Business Marketing
IP rights and (e) valuation

5. Case Studies of Collaborative Innovation & Entrepreneurial Universities
# CONFERENCE PROGRAM

**STEP- Conference-Strengthening University-Industry Interaction Conference**

| Date: Tuesday, Wednesday 17,18/2015/3/ | Venue: An-Najah National University - New Campus | Korean Palestinian IT Institute of Excellence |

## Day 1: Tuesday 2015/3/17

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<td>Registration</td>
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<td>9:30-9:50</td>
<td>Eng. Khalid Barham</td>
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<td>Prof. Maher Natsheh</td>
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<td>Ms. Beatrice Campodonico</td>
<td>EU Representative Office in Palestine</td>
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<td>9:50-10:10</td>
<td>Dr. Imad Ibrik - Project Coordinator</td>
<td>EU Tempus Project STEP - Strengthening Universities-Enterprises Linkages in Palestine</td>
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<td>10:30-10:45</td>
<td>Cesar Elvira</td>
<td>Management of Intellectual Property in Research and Innovation projects</td>
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<td>10:45-11:00</td>
<td>Ayham Jaaron</td>
<td>The Art of Building University-Industry Linkages: the Case of ABET Accreditation</td>
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<td>Anwar Al- Shaer</td>
<td>Collaboration between Paltel Group and Universities in Palestine</td>
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<td>Basel Qandeel and Amani Al-Magadma</td>
<td>Academia- Industry liaising under the siege- Gaza strip</td>
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<td>Rabeh Morrar</td>
<td>From Public-Private Partnership to Public-Private Innovation Networks</td>
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<td>11:45-12:00</td>
<td>Abd Al Hakeem Fuqaha</td>
<td>Corporation between Palestinian Universities &amp; Industry</td>
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<td>12:00-12:10</td>
<td>Discussion</td>
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Session 1 “Moderator: Ayham Jaroon”
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<td>Dr. Imad Ibrik</td>
<td>ETRERA_2020 project in Palestine</td>
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<td>Manal Zreiq</td>
<td>“Masarak” Rawabi Training Program</td>
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<td>13:00-13:30</td>
<td>Cristina Brecciaroli and Eleonora Medeot</td>
<td>The implementation of the Knowledge Triangle at national and international level: the EU KIC and the Italian Cluster models”</td>
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<td>13:30-13:45</td>
<td>Aiman Soltan Tamimi</td>
<td>Entrepreneurship at Palestine Polytechnic University</td>
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**Session 3 “Moderator: Khalid Barham”**

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<td>Hani Qusa</td>
<td>Evaluation the role of UCAS as TVET provider in linking with the local market</td>
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<td>15:00-15:15</td>
<td>As’sad Albaydah</td>
<td>Strengthening University – Industry Collaboration in Palestine via Technology and Knowledge Transfer</td>
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<td>Fahed Takrori</td>
<td>Hebron University-Industry Linkage Unit: Opportunities and Challenges</td>
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<td>Naser atyanee</td>
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<td>Amer Hammoz</td>
<td>Improvement of Students Skills towards Employment Enhancement: Collaboration between An-Najah Training and Innovation Centers with PFIU</td>
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<td>Aref Herbawi</td>
<td>Trends of Cooperation with the Industrial Sector at Palestine Polytechnic University</td>
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<td>Hasan Omar</td>
<td>Strengthening cooperation between the Private Sector and the Academia through clustering</td>
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<td>10:45-11:00</td>
<td>Tawfiq Odeh</td>
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<td>Yahya Saleh</td>
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### Session 5 “Moderator: Yahya Saleh”

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<td>Hasan Omar</td>
<td>Researcher Mobility and TTOs toward Healthy University-Industry Interaction</td>
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<td>Adnan Judeh</td>
<td>The Role of the Higher Council for Innovation &amp; Excellence in Promoting Linkage Between the Academic and Private Sectors</td>
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<td>12:30-12:45</td>
<td>Ahmad Hinnawi</td>
<td>Assessment of ICT Startups Ecosystem in Palestine</td>
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<td>12:45-13:00</td>
<td>Issam Abu Zeid</td>
<td>The Role of Nablus Chamber of Commerce &amp; Industry in Strengthening Universities - Enterprises Linkages in Palestine</td>
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<td>13:00-13:45</td>
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<td>Discussion, Recommendation and Closing</td>
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<td>Lunch</td>
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ABSTRACTS
The implementation of the Knowledge Triangle at European and National Level: the EU KIC and the Italian Cluster Models

Cristina Brecciaroli and Eleonora Medeot
Alma Mater Studiorum - Università di Bologna, Knowledge Transfer Office

An overview of two main ways of implementing the knowledge triangle (research, innovation and education) within the European context; in particular it will compare the KICs (Knowledge and Innovation Communities), promoted by the European Institute of Innovation and Technology (EIT), and the Italian Technological Cluster.

Both models aim to stimulate innovation and competitiveness at global level by identifying key strategic sectors, stimulating synergies among the stakeholders involved in the specific technological fields and pooling the best assets they can share (technologies, competences, expertise, resources, etc.).

After describing the structure of both models, some concrete examples will also be taken into account.
From Public-Private Partnership to Public-Private Innovation Networks

Dr. Rabeh Morrar, An-Najah National University
Email: rabeh.morrar@najah.edu

The evolution from the public private partnerships (PPP) to public-private innovation network (PPIIN) means a shift from cost perspective to knowledge-based perspective of evolutionary economics. PPIIN is a special case of IN, in which public and private actors cooperate and exchange knowledge and technologies to produce new innovation. In other words, they are defined explicitly as the main constituent elements, mobilizing complementary resources to develop new innovation outputs. Despite they have some similarities with public-private partnership (PPP) strategic alliances, etc, PPIIN have major differences compared to them in regards to the objectives. In the PPPs, economic objectives (e.g. complement financial resources, lowering risks and costs) are the more important, while in PPIIN, more cognitive and technological objectives are emphasized like the need for complementary knowledge and technologies, lowering the cost and risks of a new field of knowledge development, reduction of innovation uncertainties (uncertainty connected to the innovation appropriation and acceptance) and reducing the asymmetry of market information. In this view, the interactions between public and private actors in the PPIIN change from a commercial, financial and productive nature to cover a wide spectrum that goes far beyond market relations and contractual relations of cooperation.
Siniora Food Industries Co.

Tawfiq Odeh, Quality Manager in Siniora Co.
todeh@siniorafood.com

Food Industries Companies form a huge percentages of Palestinian Industrial Sector, which encourages companies here in Palestine to follow the trend of improvement, this allows Siniora Co. to be distinctive among its competitors. In this paper, we are giving a glance on Siniora, one of the famous companies in meat processing industry, talking about its history, system, products and certificates. Cooperation prospects between Siniora as an important partner of industrial sector with An-Najah National University as an academic partner is also been considered.
Evaluation the role of UCAS as TVET provider in linking with the local market

Dr. Hani Qusa
International Relations Officer, University College of Applied Sciences-UCAS, Gaza, Palestine, Email: hqusa@ucas.edu.ps

The promotion of the productivity in a society through vocational qualification activities supports individuals to achieve employment and to improve performance and income. To upgrade TVET institutions and to make them more effective places of learning, strong partnerships between training providers, enterprises and representative bodies of the private sector are essential. These partnerships are facilitated and receive support by University College of Applied Sciences (UCAS) through the UCAS Center of Innovation and Business Development (UCIBD) to determine labor market demands and the necessary supply of skills and to develop training programs that increase the availability of qualified human resources and respond to the needs of the local labor market.

UCIBD aims to provide the experience of UCAS as TVET provider in linking with the private sector in Gaza Strip. Furthermore, UCIBD will provide its vision to enhance the operations in the center through the experience of the German TVET system, and how far UCAS can apply the strategies of connecting academic sector with private sector.
Promoting Entrepreneurial Mindsets at Universities: A Case Study of Palestine Polytechnic University (PPU)

Eng. Aiman Soltan Tamimi - Director of Innovation and Technology Transfer Center (PPUITTC) Palestine Polytechnic University (PPU), Hebron - Palestine
E-mail: ayman@ppu.edu

Universities can be considered as an instrument that facilitates the creation of positive attitudes towards entrepreneurship, and consequently entrepreneurial mindsets among their students. To this end, more enterprising approach to learning is needed in addition to fostering the entrepreneurial ecosystem at higher education institutions. The collaboration with different social agents and especially the private sector is a prerequisite for successful entrepreneurship strategy. The main element of entrepreneurial university and key characteristics that an entrepreneurial higher education institution embodies has been analyzed in depth at Palestine polytechnic university (PPU). A new model is proposed to integrate entrepreneurial initiatives to help in transforming PPU to entrepreneurial university.

KEY WORDS: Entrepreneurship, Entrepreneurial Mindsets, Enterprising, Entrepreneurial Ecosystem, Entrepreneurial University, PPU.
Assessment of ICT Startups Ecosystem in Palestine

Dr. Yahya Saleh (1), *, Dr. Ahmad Hinnawi (2)
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(*) Corresponding author
(2) Done Company, Nablus, Palestine, Email: ahmad@hinnawi.ps

The startups and entrepreneurship mainly Information and Communication Technology (ICT) startups have become a very important and hot topic in the globe, in general, and in Palestine in particular since they are recently raised as solutions for many political, social and economic problems. This research aims to improve the theoretical and practical understanding of the key elements and factors that promote the growth of a successful ecosystem by exploring the case of Palestinian ICT startups. Data collection was based on semi-structured interviews, observations, literature review and open-ended questionnaire. The data analysis leads to answers to research questions related to social, cultural, organizational, technological, methodological, economical, political and educational aspects of entrepreneurship ICT startups, and their ecosystem. The research also introduces a conceptual framework that addresses the main components, characteristics, relationships and challenges related to the existing startup ICT ecosystem in Palestine in order to reduce the uncertainty and risks it encounters. Finally, it presents lessons, recommendations and a clear vision for entrepreneurs, organizations, investors, policy makers, and other key stakeholders who are interested in initiating their ICT startups in Palestine.
Corporation between Palestinian Universities & Industry

Abd Al Hakeem Fuqaha, PADICO General Manager
Email: gm@piico.ps

The relationships between private sector and universities clearly has emerged recently, as a trend of states and governments toward developing educational systems as a strategy for improving research and educational process to find harmony between the message of these universities and the development processes in community.

On the other hand, the urgent need of strengthen the relations between universities and private sectors due to the attention of various countries to develop their economic situation, increase their competitiveness and keep pace with technological development and scientific innovations to improve their competitive capabilities in the era of globalization and ease of trade in goods and services between different countries in the world.

Regarding to what previously mentioned, Palestine Industrial Investment Company signed a series of memorandums of understanding, to continue and renew the relations with Palestinian universities, based on principles and action plans. It also focused on having a relation embrace the students’ creativity and social responsibility since the improvement of industrial private sector depends on both public and private sectors efforts.

In order to clarify what said, the company has submitted a working paper presents the relationship between the academic sector and the private sector with proposals for advancement.
Strengthening University – Industry Collaboration in Palestine via Technology and Knowledge Transfer

Dr. Yahya Saleh (*), Dr. As’sad Albaydah (1), (2) An-Najah Business Innovation and Partnerships Center (NaBIC), An-Najah National University, Nablus, Palestine, Email: ysaleh@najah.edu, (*) Corresponding author, (2) Email: assademdan2011@hotmail.com

Collaboration with industry is critical for universities to create scientific knowledge and obtain industrial data and collaboration with universities is crucial for enterprises to join joint scientific-based research projects which aim at addressing and solving problems of such enterprises. Both parties need to be in contact via collaborations with the aim of developing new data, methods and technology. Many measures could be employed to strengthen mutual collaboration between universities and enterprises. More specifically, paying more interest from enterprises and universities in collaboration, revising the governmental regulations to stimulate joint projects, building two-way communication between enterprises and universities, effective initiation of university-enterprises collaboration centers and finally, increasing the mutual publicity of collaboration are among those measures. In this paper, we will employ the Knowledge and Technology Transfer (KTT) concept to develop a model for building and facilitating collaboration between the universities and enterprises in Palestine based on a win-win philosophy. Specifically, an appropriate KTT model for collaboration will be customized to the Palestinian context based on the particularity of the Palestinian situation. The perceptions of decision makers from universities, government and enterprises on such particularity will also be collected through structured interviews and questionnaires to develop the collaboration model. Then, the applicability of the customized KTT collaboration model to the Palestinian university-enterprises situation will be examined and enhanced. To this end, encouraging the main stakeholders, namely, the researchers, the university’s administrations, the government and the enterprises to adopt the customized KTT model of collaboration will be the highest value for the success of its applicability.
Management of Intellectual Property in Research and Development projects


Intellectual Property plays a fundamental role in the success of a Research and Development (R&D) project. The applicable rules and the correct approach to the ownership, protection, exploitation and dissemination of the results are key aspects that need to be carefully handled. In this respect, a good Intellectual Property (IP) Management’s Policy understanding gives an additional advantage to institutions and researchers and may prevent from potential conflicts.
The frequent and intermittent need for new scientific knowledge has resulted in an increasing concentration on links between industry and universities. But in Palestine and especially in Gaza which undergoes politically unstable situations and suffered from three wars during the last six years this is not an easy task. It is important, then, to shed the light on liaising between Palestinian universities located in Gaza strip and the local industries.

This paper aims to report and document Islamic university of Gaza, IUG, experiences and expertise in liaising with local industries under high unstable political situations in Gaza strip. The specific objectives of this paper are: identifying the main opportunities and barriers that IUG faced during the last two years to the development of links between university and local industry and clarifying IUG approach and activities to overcome these challenges to promote the process of technology transfer from universities into local industries. The paper ends with a list of recommendations for the Palestinian universities to efficiently liaising with local industries for the sake of knowledge creation and economic development.
Improvement of Students Skills towards Employment Enhancement: Collaboration between An-Najah Training and Innovation Centers with PFIU

Dr. Amer Al-Hamouz, Director of Practical Training Center, An-Najah National University, Dr. Yahya Saleh, Director of An-Najah Business Innovation & Partnerships Center (NaBIC), An-Najah National University.

Collaboration between An-Najah Practical Training centre (PTC) and Business Innovation and Partnership Center (NaBIC) with Palestinian Food Industries Union (PFIU) firms is of greatest importance for improving students’ skills towards employment enhancement in the local market. This greatly coincides with the instructional mission of An-Najah National University (ANU) of pursuing excellence in undergraduate and graduates education, research mission of conducting scientific research to quickly respond to the needs of the Palestinian community and state and service mission of improving outreach to local professional community. The main aim of this project is to make “education at ANU works towards more employment of new graduates”. This can be achieved through the use of the expertise possessed by the PTC, NaBIC and PFIU. The achievement of this project will be in line with the E2WTP calls, funded by Quality Improvement Fund (QIF), aiming at the “Development of Programs of Relevance to Facilitate Transition from Education to the Labor Market”.

This talk is about a project which is based on cooperation between the PTC and NaBIC on one side and the Palestinian Food Industries Union (PFIU). Strategically, the project is expected to develop robust partnerships between ANU and PFIU firms which enable students’ practical and soft skills to be enhanced, supplying the local Palestinian market with highly-qualified graduates, fostering the culture of knowledge transfer and innovation and facilitating the conduction of scientific research.
Collaboration between Paltel Group and Universities in Palestine

Anwar Al-Shaer, Business Analyst & Reporting Supervisor – Paltel
Email: anwar.alshaer@paltel.net

Knowledge is recognized as a crucial element of economic growth in addition to physical capital and labor. The collaboration between private sector and the academic world has always been an important but complex topic. However, collaboration between universities and industries is critical for skills development (education and training), the generation, acquisition, and adoption of knowledge (innovation and technology transfer) will benefit the society and all sectors. One of these leading industries in Palestine is Paltel Group (PG), which provides the Palestinian community with a set of services including local and international fixed telephony services, internet, data communications, mobile services and next generation services. In this talk, we will give an overview about PG, quality in PG, the social responsibility of PG towards the society and local universities, the collaboration between PG and the Palestinian universities, PG looks to universities as an integral part of the skills and innovation supply chain to business. However, this supply chain is not a simple linear supplier purchaser transaction; it is not the acquisition of a single product or service. This supply chain is multi-dimensional, it has to be sustainable and it has to have quality, strength, resilience, satisfy and fit business needs and requirements. These attributes can only be satisfied through closed collaboration, partnership and understanding between business and universities. We will discuss the obstacles and challenges of collaboration and, the talk will conclude with a proposed framework for successful collaboration between PG and universities in Palestine, which build on win-win relationship.
Researcher Mobility and TTOs toward Healthy University-Industry Interaction

Hasan Omar, CEO, Glow Innovations
Email: hasan.omar2015@gmail.com

With the small and limited market, weak, connected and dependent economy, high unemployment rates among youth who represents more than 50% of the population, innovation is a pillar and necessity toward a knowledge but innovation-based economy and more jobs in Palestine. “Innovation is about building competitive advantage while the culture of innovation is about recognizing how, where and why innovation occurs”. So, do we have such a culture in Palestine which is by the way a pillar for innovation? The main driver for innovation is the private sector and mainly SMEs. However, education is seen as an essential element in the innovation process and research institutions is the cornerstone of the innovation culture. Without the proper relationship and strong interaction between the academia including the universities and the private sector including the SMEs, Palestinian’s will not achieve many of their national goals including the “innovation-based economy” and building of the sustainable state. SMEs are sensitive against and affected heavily by the culture and the complicated business environment especially in Palestine. Also, More than 40% of enterprises are driven by necessity rather than by opportunity. Entrepreneurs at early stages of start-ups development are not export-oriented in their thinking.

In addition to that, the culture of lifelong entrepreneurship learning (LLEL) in all levels including schools and higher education as well as the healthy relationship between the academia and private sectors is not sufficient despite the many activities and initiatives took place on ad-hoc basis during the past few years.
From an idea to a company: the business plan


Having a good idea and protecting it as an IPR is a very good first step to benefit from the Research & Development efforts done by the University. However, some difficulties arise when a researchers’ project has to be transformed into a real business. Know how to prepare a business plan will help both researchers and the University to learn to think as entrepreneurs and it is also a very useful tool when looking for financing or funding.
The Role of the Higher Council for Innovation & Excellence in Promoting Linkage between the Academic and Private Sectors

Dr. Adnan Judeh, Executive Director of the Higher Council for Innovation and Excellence, Email: adnan_jj@yahoo.com

The Higher Council for Innovation and Excellence (HCIE) has been established by the Palestinian President three years ago, with a vision of a Palestinian society rich in innovation and distinguished in performance, and arriving to a sustainable knowledge-based economy.

Among the strategic objectives of the HCIE is strengthening the structure of the innovation system in the various sectors and by stimulating and establishing multi-party partnerships, including the public and private sectors, civil society, universities and any other institutions concerned, so as to form an organizational structure or framework that stimulates and enhances innovation and facilitates the realization of economic and developmental outcomes.

One of the current priorities of the HCIE is to establish a national innovation strategy, which identifies the country’s innovation priorities, promotes innovation culture, institutionalizes innovation and entrepreneurship at all relevant institutions including the education system, establishes linkages between academic institutions and the private sector and provides the necessary incubation for innovative ideas and projects.

After a brief introduction about the HCIE; its establishment, structure and objectives, the role of the HCIE in establishing and strengthening the academia-private sector linkages will be discussed as a crucial part of the national innovation eco-system which we seek.
Hebron governorate is considered as one of the most active in economic fields in Palestine with more than 3200 industrial and craftsmanship establishments. Major sectors are: light metal industry, stone and marble industry, leather, shoes, plastic industries and food and beverage industry. A partnership between Hebron University and the industrial sector is needed for both sides as it provides university with necessary funding while companies in turn will be able to benefit from scientific and technological knowledge of the academic staff. Many projects between companies in the area and individual faculty members were executed in the past. However the establishment of a center that acts as the formal link between Hebron University and the industrial sector is vital as it provides a systematic mechanism for this linking. Hebron university-industry linkage unit (HUILU) was established through STEP project and the center got the necessary equipment to start its work. As a starting point, HUILU has approached companies working in the field of plastic molding and recycling. Both sides agreed to continue their meeting to further enhancement and strengthening of their bilateral relations. The output of this relation will help us at HUILU to extend collaboration with other sectors in the area.
An-Najah National University is an outstanding university with a proud and distinct history in the region. At An-Najah National University we continue in adopting and employing the cutting-edge education and research tools and techniques. Among the most contemporary and recently emerging and demanding issues is the dire need to make a paradigm shift from the traditional ways of teaching and education to the creativity-, innovation- and entrepreneurship-based teaching and education techniques. To satisfy such a paradigm shift, the university’s administration has decided to establish An-Najah Business Innovation and Partnerships Center (NaBIC) for the purpose of effective institutionalization of relation between the university and the private sector on one side and to promote for the culture of creativity, innovation and entrepreneurship among the university’s community. NaBIC’s main function is intended to be the mediator between the university (academia) and industry (enterprises) as well as the source for promoting innovation in the university. This talk summarizes the mission, vision and the philosophy as well as the main tasks of NaBIC. It also includes sound implemented activities to fulfill the goals of the center via building more sustainable partnerships with local industries, public and governmental organizations.
PFIU and Its Role in Trainings and Employment in Food Industries

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The food manufacturing sector is led by the Palestinian Food Industries Union (PFIU) which was established in 1995 and reregistered under the No. IA/00010408/. PFIU currently represents 206 company members in Palestine. PFIU conducts a number of activities aimed at promoting and improving locally-made products, offering management and marketing skills training and finally providing assistance for company members in opening export markets. The total investment in the industry is over than $580 million. This Sector employs more than 15000 workers which represents 20% of total employment in the industry. This presentation focuses on the role of PFIU in training and employment initiatives and projects carried out between the PFIU and its members on one side and the universities and academic institutions on another side.
The Role of Nablus Chamber of Commerce & Industry in Strengthening Universities - Enterprises Linkages in Palestine

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The Chambers of Commerce & Industry (CCIs) are no longer considered by countries as mere syndicates or trade unions defending the interests of a certain sector of the civil society, but they are seen nowadays as institutions operating in the interest of the society as a whole. Nablus Chamber of Commerce & Industry (NCCI) is a non-profit, self-funded, private institution and was established in Nablus in 1943. Its roots are back to the year 1927. The first Board of Directors (BoD) was elected in the year 1953.

NCCI tries to determine the nature and importance of the forms of the relationship between business organizations, government, universities and private sector. It also seeks the ways of strengthening and developing this relationship to contribute effectively to the achievement of the quality of higher education in Nablus, to provide distinctive programs and outputs in line with modern developments and meet the needs of the community and with the requirements of the Labor Market (LM).

Relationships between NCCI with educational institutes started with Nablus Vocational & Industrial school (NVIS) in 1993, to upgrade the VET system in the school specially in the field of equipment. Years later, relationships with the ministry of education and labor were built in order to meet terms of syllabuses. Great relationships with TVET Belgian Project -which is funded by BTC- and CCI in Nablus in 2009 and for 4 years, to attain four main common goals, linking training with the labor market, institutional capacity building, market-based training program development, and support creative ideas between TVET institutions and PS.
The Art of Building University-Industry Linkages: the Case of ABET Accreditation

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Majority of academic literature available on the topic of improving university-industry linkages examines the different channels through which academia connects with industry and the factors that influence the universities’ engagement in a variety of interactions, giving little attention to developing academic quality assurance systems that can institutionalize university-industry linkages. Based on a case study methodology, the presentation discusses the need to help various academic programs seeking ABET accreditation at an institution by streamlining and centralizing the process of institutionalizing links with industry. This intended presentation aims at tackling this issue by proposing a novel form of ABET quality assurance tools that can enhance variety of academic programs interactions with industry.
A Case Study on:
Trends of Cooperation with the Industrial Sector at Palestine Polytechnic University (PPU)

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This paper presents the experience of Palestine Polytechnic University (PPU) as a case study in the field of bridging the gap with the local industry in order to meet industrial Technical, Developmental and Personnel demands.

Moreover; it implies the relations and cooperation channels among universities and local community enterprises, concentrating on the relations with the industrial sector, and highlighting the role of PPU different divisions, departments, units and centers in the field of community services.

This case study discusses the industry needs from universities on the level of Applied Research, Technical Services and Consultations, and Qualified Manpower, in addition to the methodologies of communication between PPU and Industry, as well as the future vision of PPU towards innovative networking and civic engagement.

Within the trends of relations with the industrial sector, this paper discusses personnel and human resources from the education and training wise, and from the orientation of scientific research towards the industry wise, in addition to the information and knowledge transfer, and providing technical solutions and consultations that aim to develop the local industry in the context of community service.

The study concluded a set of results emerged from a series of recommendations towards reinforcing the relationship between the academic and industrial sectors.

**KEY WORDS:** Industry, Networking, Development, TVET, Capacity Building, Hands on Training, Quality, Applied Research, Pilot Projects, Community Services.
Strengthening University-Industry Interaction using “Cluster Development”

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As a concept and a term, “Cluster”, “Business Cluster”, “Industry Cluster”, “Cluster Development”, “Clustering”... is new in Palestine while its implemented years ago in Europe and the ICT Silicon Valley is the biggest in the US. This subject was tackled by many scholars starting Porter’s (1990) book “The Competitive Advantage of Nations” and hence called the “Porterian Cluster”. He defined the cluster as: “a geographical proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and externalities”. (Michael E. Porter, On Competition). It is a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field.

The education sector as well as the economic sector are the main source for and feeding innovation which is an important factor of the industrial development in all fields. Within the context of globalization and competition on all levels, innovation becomes a must and even more important aspect of sustainable competitiveness. Innovation cycle is based on the education and professional enhancement, dissemination and personal recognition, research and technology transfer, intellectual property and standards, funding, business development and market trends.

Within the European model for the alliance of innovation, an important success factor of the clusters, business sectors and the private sector at large is the integration and cooperation between the academia sector and the clusters. Universities all over the world play a critical and leading role in many of the implemented successful related models for cooperation.
From Research to innovation in Palestine.*ETRERA_2020*
Empowering Trans-Mediterranean Renewable Energy Research Alliance for Europe 2020 challenges

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Knowledge, research, and innovation are of crucial importance for the competitiveness of an economy and a recipe for economic development not only for developed and developing countries, but also for entities surviving a political abnormality, such as the Palestine. As Palestinians are currently planning for their future viable state, the policy and decision makers should formulate relevant science, technology, and innovation policies that encourage the different national sectors to utilize the available innovation potentials and the experience and support of other countries, for developing a competitive economy.

Conducting and analyzing a community innovation survey on one major Palestinian sectors, namely “clean and efficient energy”. Employment, export, and revenues are clearly improved in innovative enterprises. Lack of cooperation between the industrial sector and the higher education and research and development institutions is found to be a major problem that should be tackled in order to strengthen the enterprises’ ability to innovate. ETRERA_2020 will address its efforts on secure, clean and efficient energy societal challenge with a focus on the following technologies: wind, photovoltaic, solar thermal, hydrogen and fuel cells, grid connection. The project is aimed at the creation of a research network on renewable energies involving as primary actors across the research to innovation value chain. The project foresees a set of ambitious objectives to be reached within its conclusion: improving human resources & know how of MPC centers; increasing the networking opportunity among the main actors of the RES value chain; increasing of public-private partnership; increasing the accessibility to research facilities; increasing the project/partners visibility in order to attract research/industry partner.

**KEYWORDS** Innovation, Technology Transfer, R&D, Renewable Energy
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