

POST- EVENT REPORT

03 MAY 2017

STEM POLICY DIALOGUE ROUNDTABLE MEETING

VENUE: ROTANA HOTEL, AMMAN, JORDAN.

***(SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS)**

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STEM POLICY DIALOGUE: POST-EVENT REPORT

Context

In an effort to change the conversation, British Council Jordan has started to lay the groundwork for its intervention in the current relationship between STEM education and employment. We are doing this through creating an understanding of the need to link the STEM competencies with general learning, vocational education, university education and industry requirements. In order to accomplish the above the British Council conducted in-country research around STEM education in Jordan; Following on from this, British Council Jordan held a STEM Policy Dialogue session, to share the findings and gather insights and recommendations from experts in the field to support increased effectiveness of STEM training and education, and ultimately work towards the recommendations of the National Strategy for Human Resource Development.

STEM Policy Dialogue participant organisations:

- Ministry of Education
- Change Agent For Arab Development & Education Reform (CADER)
- Al Hussein Technical University
- Jordan Chamber of Industry
- Information Technology Association of Jordan (INT@J)
- Petra Aluminum
- Ministry of Higher Education
- Department for International Development (DFID)
- Vocational Training Corporation

Key points

These were the key points gathered in the roundtable meeting on Wednesday 3 May:

- Currently in Jordan there is little interaction between local economic sectors and education, particularly at school (secondary) and vocational training levels.
- The group agreed that STEM subjects need to be more geared towards employability, and that stronger links must be built between educational institutions and the job market.
- One problem that exists in Jordan is that many employers, especially in the private sector, seek inexpensive labour rather than competent labour - these employers tend to see STEM graduates with very specialist training and knowledge as undesirable employees.
- STEM graduates often struggle to find work appropriate to their education level and



specialisms in Jordan due to limited appropriate job opportunities, and are often better suited to work in the UK/US.

- Jordan suffers from a poor public perception towards technical and vocational training. In part this is due to the government being one of the biggest employers in the country, and their preference for university graduates.
- The majority of Jordanian companies are trade based and have little defined technical, vocational and STEM requirements. As such, general national consciousness regarding STEM's importance and utility is weak.
- There is a general understanding of the importance of STEM education, but this rarely extends to include an awareness of its utility for industry and the economy. As such STEM is easily discussed among academics, but usually not linked into the economy or implemented in a useful manner.

96% OF COMPANIES ARE MICRO OR SMALL, 90% HAVE FEWER THAN 10 EMPLOYEES, ONLY 4% ARE CONSIDERED TO BE LARGE COMPANIES.

- STEM POLICY DIALOGUE
ROUNDTABLE MEETING, 3 MAY 2017

STEM: the alternative future

An introduction to STEM and its importance was delivered by *John Mountford, International Development Director, Semta*. Below are the main discussion points that he raised.

- **Demand** for STEM skills and the growing need for people with higher-level skills in growth sectors such as construction, manufacturing, engineering and science.
- **Challenges** facing STEM such as staff recruitment and retaining and engaging employers in the design of STEM learning resources and training, and continuous professional development improvement to ensure the STEM workforce keeps abreast of rapidly changing skills requirements.
- **Solutions:**
 - 1- **Shared workshops** to encourage the sharing of further-education resources for STEM related subjects. Encouragements for teachers, tutors and trainers to share their best practice STEM teaching resources.
 - 2- **Recruitment** of new STEM teachers through career events and national recruitment campaigns and dedicated vacancy website to help graduates fill STEM vacancies.
 - 3- **Retention** of STEM teachers by producing a recruitment and retention guide in order to increase the numbers entering STEM teaching, helping Heads of Department and HR professionals to understand how to successfully recruit and retain STEM teachers. Finally, a focus on the three main strands of recruitment: attraction, engagement and

selection and the three main strands of retention: induction, culture and talent management.

- 4- **Engaging with Employers** by encouraging them to influence and support their local FE provision, creating an online matching service bringing together individual teachers, tutors from colleges with employers within their area, ensuring STEM teaching keeps pace with advances in modern industry and encouraging employer involvement in the development of National Occupational Standards, Qualifications and Work.
- 5- **Create a PR and marketing campaign** that encourages employers, teachers, skills providers and learners to embrace the STEM agenda. Finally, use case studies and examples of good practice to help demonstrate how STEM can be effectively embedded into the curriculum.

STEM in Jordan

This session was followed by **three sessions** presented by *Laith Al Qassem, Chairman, ABCD Organisation*, and highlighted the **three points** below:

Concluding Remarks for the evolution in education in Jordan:

- Government of Jordan has been working on many educational reforms since the early



2000s

- It has been successful in introducing ICT into schools and improving the curriculum
- Weakness in identifying the importance of linkages with the economy and whether transition to knowledge economy is realistic
- Heavy course load on students is negatively affecting the 3Rs in early years
- We have all the necessary **“best practices”** regulatory bodies

Then *Mr. Al Qassem* presented set of **procedures** in order to **identify** the employers' **needs**:

- Identify where **specific sectors** should **develop** (markets, product and service development, etc.)
- There is a need to identify **competency** and **skill gaps** (vocational and professional)
- A need for a professional **HR intervention**.

Mr. Al Qassem moved to the third point and highlighted the **importance of implementing STEM in Jordan as a method for teaching and the steps needed for the implementation**.

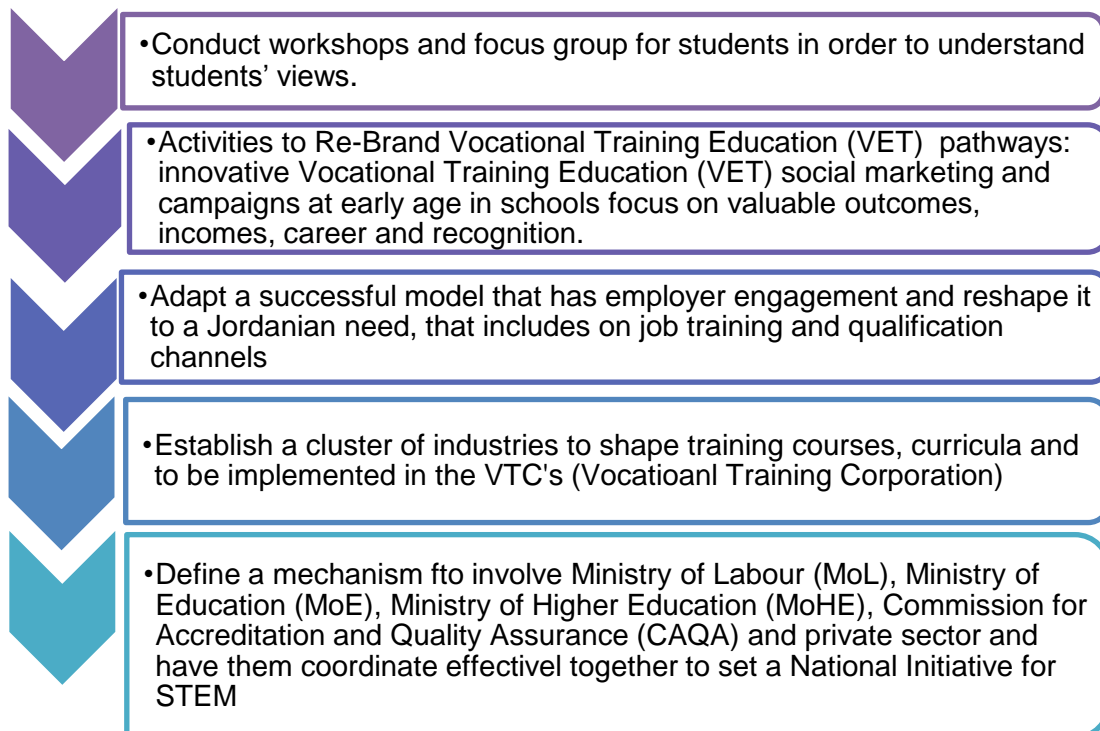
- For STEM's relevance to be obvious the **linkages between STEM developed skills** and competencies and vocational and academic skills and competencies **must** be articulated.

- **National** economic objectives at a **sector level** must be broken-up into required skills and competencies. These must be linked with specific learning outcomes at the university, vocational and secondary levels, and STEM outputs and initiatives.
- Linkages, outcomes and outputs must be **continually monitored** and evaluated to safeguard economic utility and linkages with industry and economic direction.

What makes it happen

- Linking with expertise from different industries
- Learning with economic outcomes
- Active involvement of private sector in governance of VET.
- Twinning programmes with other Centres of Excellence (COEs) around the world that are private sector driven.
- Provide qualified technicians ready for job market.
- Raising awareness of parents/ people towards STEM education

Recommendations:



Participants' Feedback

