

# Northeast Ohio – Hungary Economic Development Program

## **Trip Report** *Visit of May 11- 15, 2009*

### **Executive Summary:**

The mission of the Economic Development Committee of the Cleveland Hungarian Development Panel (CHDP) is to encourage business collaboration between NE Ohio and Hungary by finding new innovations, strengthen person contacts and build connections with a variety of organizations in business, science, technology, education and government. We particularly hope to attract businesses, especially small and medium sized (SME's), to our community where there is a large Hungarian population to welcome them. This is a NE Ohio economic development objective.

This report summarizes the results of the May 9-16, 2009 scouting mission for polymer companies to Hungary. *By all measures, the trip produced an extraordinary number of leads and contacts that warrant serious follow-up, and unearthed an unexpectedly significant number of serious business opportunities that could result in successfully attracting innovation and business from Hungary to Northeast Ohio, for the benefit of both regions.*

This was our second trip to Hungary – the first was in May, 2007. The technical focus of that trip was biotechnology/health care. A report from that trip can be found on the web site for the CHDP, [www.clevelandhdp.org](http://www.clevelandhdp.org). Various follow-ups from that trip are still underway. The initial trip was strongly supported by US Ambassador to Hungary, April Foley and the Ohio National Guard offices in the US Embassy, Hungary.

Working with U.S. Commercial Services (USCS) and the Hungarian Investment and Trade Development Office in the consulate in Chicago (Miklos Martin-Kovacs), a very busy schedule of polymer company, government agencies and trade or innovation associations was arranged in both Budapest and in Miskolc (Cleveland's sister city in Hungary). The polymer technical experts on the trip were from PolymerOhio and the University of Akron.

In addition to identifying polymer companies of interest for follow up, our purpose was to assess the feasibility of a trip to Hungary in May, 2010 which would be a full Trade Mission from Cleveland (biotechnology) and Akron (polymer) and would include presenting an Innovation Summit on “*taking innovation to market*” to the Hungarian technical community.

We again were hosted and assisted by the U.S. Embassy. The new US Ambassador to Hungary is expected to be appointed by the end of summer.

The following reports summarize our meetings and findings. We split into 2 groups for all the meetings except the briefing by the Embassy on our first day. After that, Jenny and Glenn Brown, Carolyn Balogh, and Kevin Aspegren (all of whom were on our first trip in May, 2007) met with

several NE Ohio/US company offices in Budapest - (Squire, Sanders and Dempsey courtesy of Tom Stanton, Managing Partner; E&Y and CitiBank courtesy of Mike Ventling, VP; and PolyOne courtesy Steve Newlin, CEO); government agencies and associations from Tues – Fri for Jenny and Glenn, and from Tues – Wed for Carolyn and Kevin. Our report is presented in **Sections A to L** of the following. It provides general information about the political and economic situation in Hungary at this time and who the various players in the innovation space are.

Of special interest are **Section B**, Summary of Business/Innovation Climate in Hungary, and **Section E**, Most Important Contacts. We had an especially intriguing discussion with Kevin Connor, SSD, who recommended we make a **return trip in late October of THIS year** – specifically to meet with the private equity sector in Budapest who have “*tons of HU companies in their portfolios ready for US market and/or investment.*” He will make the introductions for us. ITD HU offered real assistance in finding and setting up “sector stars” for our consideration. Former Ambassador to the US Andras Simonyi is working to advance Hungary’s global competitiveness, wants very much to assist us with our mission and has great connections.

We tried to assess the receptivity to our specific proposed follow up trip in 2010. **Sections I** and **Section N** summarize our conclusions. We might want to separate a traditional Trade Mission trip and an Innovation Summit. May, 2010 elections in Hungary suggest this is not a good time for a Trade Mission. But there was MUCH interest in an Innovation Summit and follow up trips on biotechnology and polymer companies – perhaps adding in a new scouting mission on alternate energy. This could happen at any time.

Jim Balogh, Lél Somogyi, Judit Puskas and Steve Jolly met separately with polymer companies on Tues/Wed in Budapest and on Thursday in Miskolc. Carolyn Balogh joined the group to Miskolc on Thursday and also met with Miskolc city officials.

The reports on the polymer companies, ranked in priority order on the first page, and with detailed descriptions of the polymer technology and company on following pages, is **Section M**. **It should be noted that there are 5 companies rated as High Potential, and 6 as Medium to High Potential out of 16 companies or divisions we met with!** This indicates the excellent vetting by Dr. Steve Jolly, Prof. Judit Puskas and Joe Jacomet of PolymerOhio ahead of time from the list of polymer companies sent us originally by USCS. We also had given USCS and ITD Chicago our requirements for companies of interest before their search, which clearly helped to narrow the field. *This is excellent yield and made the trip exceptionally worthwhile.*

ITD Pecs in HU identified one polymer company with a process (PCP) of very high interest which converts polymer waste to liquid hydrocarbon useable as a fuel supplement. Process has an ROI of 3 years and 11 plants already operating around the world. Company is one of Hungary’s oldest and is privately owned. They are seeking US market. See write up in **Section F**. **We feel there is high urgency in following up as soon as possible with this company.**

Kevin Aspegren’s report is **Section N** because of his 6 month presence annually in Hungary at the Univ of Pecs (Ohio University/Univ of Pecs Simonyi program), and his willingness to be our on-site contact for much follow up work going forward. As an entrepreneur and successful businessman himself he has a unique understanding of the technology transfer process. His comments, unedited, are therefore useful.

## Summary of Key Action Items:

- 1) It is now imperative to quickly organize a meeting of NE Ohio economic development organizations such as TeamNEO, NorTech, PolymerOhio, etc., including those representatives who were on our first trip in May, 2007 (BioEnterprise, Cleveland Clinic Innovations, CWRU, Cleveland Foundation) to review this report and decide on primary responsibilities for follow ups. Hungary is clearly well poised to be an extremely attractive and important partner for business development with NE Ohio. There is immense potential, but we must act. We believe this is an important opportunity for economic development in our community.
- 2) Decide on feasibility of an October, 2009 trip with a small group to only assess the HU private equity community potential for partnership.
- 3) We must make the decision on whether to plan a Trade Mission in 2010 to Hungary by the end of Fall, 2009.
- 4) We must decide on value of organizing and presenting an Innovation Summit in Hungary in 2010.
- 5) We must follow up on PCP process technology for waste treatment.

Jeanette Grasselli Brown  
*June 8, 2009 – Cleveland, OH*

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### Note:

*This report is published on our website at:*

[www.clevelandhdp.org/economicdevelopment/NEOhio-HungaryMay2009TripReport.pdf](http://www.clevelandhdp.org/economicdevelopment/NEOhio-HungaryMay2009TripReport.pdf).

*Please check the website for corrections, additions and for the most current information concerning next steps and follow-up activities.*

# NEOhio-Hungary Economic Development Program

## Detailed Trip Report

### Participants:

[Jeanette Grasselli Brown](#) and [Glenn Brown](#) – CHDP and ret. Dir. Corp Res, BP America (JGB); ret. Sr.VP, Standard Oil Co. and President, Generation Foundation (GRB)

[Carolyn Balogh](#) and [Jim Balogh](#) – CHDP – Founders and owners of Mar-Bal, Inc – leading manufacturer of thermoset materials and components

[Kevin Aspegren](#) – entrepreneur and Dir. - Ohio Univ/Univ of Pécs Charles Simonyi Center in Pécs, Hungary

[Lél Somogyi](#) – CHDP and Open World Solutions; IT and Management Consultant; business entrepreneur experienced in Hungarian company attraction; fluent in Hungarian and English languages

[Prof. Judit Puskas](#)\* - University of Akron, Dept. of Polymer Science – Hungarian born and doing collaborative research with HU now at Zoltan Bay Foundation in Miskolc

[Stephen Jolly](#)\* – PolymerOhio and Plastech Consulting

*\* Funded by The Cleveland Foundation, the Cleveland Hungarian Development Panel (CHDP) and PolymerOhio.*

*Participant biographies can be found at the links associated with their names and directly at the website [www.clevelandhdp.org/economicdevelopment/trademissionmay2009.htm](http://www.clevelandhdp.org/economicdevelopment/trademissionmay2009.htm).*

### Section A

### Summary of Trip and Meetings:

Briefed on HU economy and business/education issues by Jeff Levine, Charge D' Affaires (LevineJD@state.gov), US Embassy, Patricia Gonzalez, US Commercial Services and Michael Hurley, Counselor for Public Affairs, US Embassy – being replaced soon by Ed Loo (looe@state.gov).

Met with:

16 polymer companies, plus Pinter & Tokarz Co. – a HOT LEAD, with a T-Technology polymer waste management process –see separate write up in report (**Section F**)

4 US Companies with offices in Budapest and Europe: Citibank Europe, PolyOne Europe, Ernst & Young, and Squire, Sanders and Dempsey

Government organizations and associations:

American Chamber of Commerce in Hungary, National Office for Research and Technology (NKTH), ITD HU (Investment and Trade Development Agency), Hungarian Association for Innovation (MISZ), INNOSTART (National Business and Innovation Centre), Association of Hungarian Plastics Industry, Zoltan Bay Foundation for Applied Research, Budapest University of Technology and Economics, Dept. of International Affairs, and City Officials of Miskolc, Cleveland's "sister city" in Hungary.

## **Section B**

### **Summary of Business/Innovation Climate in Hungary:**

2004 Innovation Act was important and there was much support for it – BUT, there has been very little activity since. The framework for innovation is there, but there is no strategy for implementation and no understanding in Parliament on how to make Innovation a political agenda. (Dr. Antos, MISZ, and Andras Simonyi, former Ambassador from HU to US).

Hungary needs capital and management skills. Also needs help with incubators and how to operate successfully. “Seed” and Angel early stage funding is available but not much awareness of process of innovation to market. (AMCham)

Hungarian companies are eager to license technologies to US. (AMCham)

\*\*\* Opportunity costs for entrepreneurs is very low now in HU, so innovation and starting your own company is much more attractive than looking for work with a large multi-national company. (Balassy, CitiBank).

NOTE: An excellent overview of Science and Technology Status in Hungary was given to us in January, 2007 by then Ambassador to Hungary from US, April Foley. It is available on the CHDP website – [www.clevelandhdp.org](http://www.clevelandhdp.org). Many of the updates we received in visits to government agencies which are summarized below are substantiated in that document.

## **Section C**

### **Education:**

The number of students going to US from HU is down by 35% since 2001! 90% of those who apply DO get a visa. Fulbright scholarships are available to cover travel costs but these are not applied for as much as they should be. US Embassy (Mike Hurley) would like more info on scholarships/programs and availability in US, especially OHIO. Lots of interest in the CWRU Resident Affiliate Program and in the OU/Pecs program by almost all groups we met with. Judit promoted much more student exchange in every meeting she attended.

*\*\*Follow ups:*

- 1) JGB sent Mike info on CWRU program, with Mark Coticchia’s contact info. Also sent him Tamas Csorgo contact and he wrote a very nice supporting letter on value of the CWRU program to Mike.
- 2) JGB sent info on OBR data base of scholarships and programs to L. Balassy, L. Dvorszki, L. Antos, and K. Connor. Mark and Noah Sudow at OBR have already sent Ohio brochures with such info to Mike.
- 3) Laszlo Balassy at CitiBank is on Fulbright board of directors and on board of AMCham – JGB sent him info on CWRU program, Coticchia contact info and brochures on Ohio college scholarships. Laszlo will present to Fulbright commission in Hungary at their next board meeting.
- 4) Kevin A. to provide info on OU/Pecs program to Mike Hurley, Andras Simonyi and Laszlo Balassy.

## **Section D**

### **Major Technology Areas in Hungary:**

- Biotechnology/health care /life sciences /genomics
- IT and communications
- Green technology and alternate energies, esp. wind, geothermal, bioenergy and solar
- Materials – especially nanotechnology
- Automotive Engineering

## Section E

### Most Important Contacts:

#### 1) *Kevin Connor, PE at SSD (kconnor@ssd.com).*

*“Tons of Hungarian start-ups – ready for development, patent help, market development, and next stage of \$5-10 million VC funding”.* He sees many every week that are portfolio companies with groups like iEurope, a private equity fund managed by Charles Huebner and Laszlo Cerik with a focus on high technology companies and **medical device** companies. 3TS is another HU fund that he said we should meet with. He understood our mission immediately, very much applauded it, said HU is ready and he will introduce us to Charles Huebner and others on our next visit. He felt many of these portfolio companies would readily come to US – especially to Cleveland because of large HU population still here. He highly recommended that we work directly with the private equity side in HU. Also feels there is a HUGE market potential in HU for *“global medical tourism ie, plastic surgery, dentistry, etc.”* plus the thermal springs everywhere which present great spa development/medical opportunities.

*\*\* Follow up.*

1) Suggested we contact Comgenex a pharma company that he said is trying to establish a US presence in Boston. He suggested we go after it – why not NE Ohio instead, because of CCF and UH. He offered to give us a cyber introduction. JGB sent this info to Tom Sudow.

2) Huebner is also on board of Central European University – BIG research and innovation presence in Budapest. JGB sent Connor info on CWRU Res. Affil. Progr and brochures on Ohio college scholarships to give to CEU and Huebner.

**NOTE:** JGB attended the recent TIE meeting and heard Ralph Della Ratta from Western Reserve Partners discuss their partnerships with organizations around the globe. I asked him about Hungary and have obtained the name of Kalman Nagy (k.nagy@con.hu), CEO/Director/Partner of Concorde Corp. Finance Limited in Budapest. IF group goes on another visit to Hungary later this year, we should make contact with this man and company.

#### 2) **ITD HU –Investment and Trade Development Agency - G. Retfalvi (gyorgy.retfalvi@itd.hu), CEO, (Mark Mautner (mark.mautner@itd.hu), Head of Business Development side), Judit Hoffmann (judit.hoffmann@itd.hu), and Honoria Pozsgai-Gera (itdpecs@itd.hu), Regional Director (found Pinter & Tokarz PCP polymer waste process for us with Kevin Aspegren’s help).**

Mission: Help HU companies looking for investors and get HU companies ready for investors.

Funded with 10-15 million Euros to work with VC’s for ITD companies (about 700 in portfolio), part of this money is focused on sector companies and small amount (1 million Euros) is for early stage and seed money.

Organized into 2 groups: Investment side and Business Development side. Business development side is organized into technology sectors with specialists for each sector. They show off HU companies at Trade shows across EU.

*\*\*\* VERY interested to work with us by making us aware of companies in each sector that are “ready” and which they have vetted. They understand our requirements for these companies ie, products already produced and sold, etc. Mark and Honey are our contacts.*

*\*\* Follow up.*

They need contacts here per sector, ie, Bioenterprise for bio and health care, PolymerOhio for materials?, ?? for energy, Lél Somogyi plus ? for IT.

3) **Andras Simonyi** – former Hungarian Ambassador to US ([a.simonyi@hotmail.com](mailto:a.simonyi@hotmail.com)).

Starting up his own company in HU to assist in technology transfer and innovation to market. He and Kevin really “connected” and will work together to find appropriate companies with interest in NE Ohio. He had 2 immediate prospects in mind and said he would send info to Kevin – gratis. Eventually, we presume he would want to be compensated for companies successfully brought to NE Ohio for us. Wanted contact info for Tamas Csorgo and JGB sent it to him along with information from Coticchia with brochures on opportunities for foreign students in Ohio. Interested in OU/Pecs program – *Kevin will provide.*

4) **Agnes Pandur**, Commercial Specialist at US Commercial Services in the US Embassy ([agnes.pandur@mail.doc.gov](mailto:agnes.pandur@mail.doc.gov)).

Her technology specialty is **alternate energies**. She did research on polymer companies for this trip. Very efficient and cooperative. Wants to work with us. She expects to remain in Hungary.

### **Section F**

## **Hot Lead with T-Technology – PCP Process:**

*T-Technology PCP process of Pinter & Tokarz, one of the oldest companies in HU.*

Project Manager – Andras Kokany ([kokanya@istf.hu](mailto:kokanya@istf.hu)), Financial Manager – Istvan Urban ([urbani@istf.hu](mailto:urbani@istf.hu)), ITD contact, Honoria Pozsgai-Gera ([itdpecc@itd.hu](mailto:itdpecc@itd.hu))

Company is privately owned, revenues of over 1 billion HU forints, with 1000 employees and are located in Kecel, HU. Sell products in 52 countries, and also to NATO.

PCP project is 3 years old. Have international patent protection, including US. Process converts plastic waste (ALL types – packaging, toys, vehicle parts, radio/TV/computer/office equip parts, etc. – but mostly PE and PP products) into a liquid hydrocarbon product usable as fuel oil or as an addition to diesel (C8 – C 34). Process is a catalytic depolymerization at atm. Pressure and 420- 490 degrees C. and is totally enclosed (have certification as “Green” by EU). Waste products are low (<10% water and CO<sub>2</sub>, solids 1-5%, and synthesis gas 15-18%).

*\*\*\* ROI is 3 years, 1 year if liquid hydrocarbon is sold.*

8 million Euros to install – takes 1 month to install – employs 16 working 3 shifts. Capacity is 6000 tons/year IF plastic is pre-selected (also sell a machine to do pre-selection – based on density gradient – because EU requires pre-selection). Can tailor pre-selection machine to type of waste to be handled. They can produce 1 machine/week.

We saw video of machine in operation. Have 11 units operating in Poland and units in Romania, Slovakia, India and the Philippines. They welcome a visit to observe operations in Poland or other location and to discuss ways to get this into US market. Their CEO, Mr. Togarsz knows President Obama.

Unicorp is only competitor but they claim Unicorp process is not as effective and is not “Green”.

They have no US sales force or distributor.

*\*\*\* VERY interested in a joint venture with an OHIO company to make this technology available to North America or in direct sales.*

Also talking to California.

Honey from ITD, Pecs has offered to “do a complete analysis, feasibility study, ROI forecast, project adaptation to the US market, etc. Let me know if you need a study like this and we will form one as soon as possible”. See her email of 5/22/09 with attachment providing more technical data on PCP process.

*\*\* Follow ups:*

JGB sent info to Tom Waltermire, TeamNEO; Tom Sudow, VP TeamNEO and our TeamNEO contact; Dave Karpinski, NorTech; Baiju Shah, BioEnterprise and former team member to HU; Joe Jacomet, PolymerOhio; Steve Jolly, PolymerOhio.

Dave suggests also involving Vinny Gupta, TechLift and Jenny suggests also involving Richard Steubi at Cleve Fndn, Steve Newlin at PolyOne or even possibly Waste Management company?

*\*\*\* Need to assign primary responsibility here to take this forward.*

**NOTE: See Kevin’s report – Section N - Simonyi Center in Pecs is assisting company with business plan.**

## **Section G**

### **Action Items:**

- 1) Budapest just named NATO Center of Excellence for Medical Technology. Jenny informed Chris Coburn, but he, Baiju and Tom S. should get info and follow up – Patricia Gonzalez and Steve Knode might have info – but Patricia will be gone June 3 and Steve by July 1.
- 2) Get procedure in place for ITD to send us their sector “stars” (already evaluated) – ready for potential US investment and location. Mark and Honey are our contacts. Kevin A. to assist. They have 10 active Biotech companies now that a Boston VC firm is going to Hungary to evaluate. They will share that evaluation with us.
- 3) Get info from Kevin Connor on HU VC Association and get on their mailing list - JGB to do.
- 4) Get info on VEKLA – ([www.vekla.hu](http://www.vekla.hu)) HU SEM making bricks from plastic waste. Jenny has asked Honey to check out this company and send us evaluation.
- 5) Keep in touch with Simonyi and Aspegren on companies Andras has identified.
- 6) Get list of SME’s from Gusztav Bienert, Pres. AMCHam for those technology sectors of interest to us that are in their data base (he offered this).
- 7) Get info from INNOSTART on their Business Angel Network and schedule of their meetings.
- 8) Consider trip to Hungary in late October, 2009. Objective: 1) meet with Huebner and iEurope (Kevin Connor). 2) meet with ITD. 3) meet with Andras Simonyi and Kevin Aspegren. 4) meet with EIT – Dr. Balint Magyar (Tibor Kovacs and Dr. Dvorszki) – see notes on EIT below. 5) decide on desirability/need for Trade Mission in May or Sept, 2010 to Budapest and Miskolc – see notes below and report in Section N by Kevin Aspegren 6) meet with new Ambassador from US to HU, and new USCS individuals, e.g. Robert Peaslee, Marianne Draine and Ed Loo. *Possible participants:* Browns, Aspegren, Shah, Sudow, Waltermire, Coticchia, Coburn?
- 9) Establish contacts with CEU (Kevin Connor), Semelweisse Univ (Judit Puskas), Eotvos Univ. (Dr. Antos), and ELTE (Kevin Aspegren), GE HU (Esther Szabo and Laszlo Kuzi in Warsaw – Patricia Gonzalez), P&G (Hassam Ashour, Patricia G and Carolyn Balogh)

- 10) Visit Hungarian Embassy in Washington, DC to get better understanding of the Science & Technology Agreement between HU and US (Mr. Erdei), and to meet with Tech Center in VA, funded by ITD years ago (Mr. Foldesi). JGB and CEB to do in July.

## ***Section H***

### **European Institute of Innovation and Technology – EIT:**

Decision in 2008 made by EU to site this in Budapest. Will receive 300 million Euros from EU to fund through 2013. This is to be 25% of costs – remainder of funds to be obtained from industry and private sources. Conceived as way to boost innovation in EU a la MIT!! Plan to have 60 people by 2011. Have site now under construction (next to BUTE on Buda side).

Mission: Innovation, Education and R&D

Focus areas: IT and communications, Climate, Energy

Managed by a Board of Governors (Directors) of 17 – half former Bus. Executives, half internationally recognized scientists (1/country of EU countries).

President will be named in July, 2009

Dr. Laszlo Dvorszki ([dvorszki@mail.bme.hu](mailto:dvorszki@mail.bme.hu)) is a government commissioner for EIT. We met and he provided the above information. Dr. Balint Magyar is the Hungarian scientist on the board of governors (Dvorszki will introduce us).

*\*\*\* It was suggested that IF we have a trade mission and innovation summit in Budapest (and Miskolc) in 2010, our Summit could be the Inaugural Event for the EIT!!!!*

## ***Section I***

### **2010 Trade Mission/Innovation Summit Considerations:**

- 1) Should decide by end of 2009 if this is go or no go. Group was divided on value of doing BOTH trade mission and innovation summit in 2010 visit, or just doing summit and letting trade mission be handled by usual manner between ODOD and Mayors in Ohio for technology areas of interest.
- 2) Jeff Levine would invite Mayors, Senator Voinovich, Alex Machaskee (Serbia contact), ODOD, and other officials – or have new Ambassador issue invitations. It was suggested that Mayors of Cleveland (sister city – Miskolc) and Akron (if interested) make this a combined sister city/trade mission visit which would include Budapest, Miskolc, Slovakia, and Belgrade, Serbia. (Hungary is working hard to normalize relations with Serbia via Trade and Education). Trade mission concept would be 2-way: sell NE Ohio to HU companies and innovators, and also take bio/polymer companies interested in HU market. There was strong support from Embassy. BUT – they suggest we need clear goals of what we want to achieve through this effort.
- 3) Innovation Summit concept was basically supported and of interest to most of those we talked to. Technical areas of interest are Biotech/Health Care (especially broadband/health care IT systems), polymers, and alternate energy. Education, technology transfer/incubator/seed and early stage capital experiences were topics of interest. One or both Mayors could Keynote (IF Trade Mission and Innovation Summit are combined as one trip). If Summit is separate trip – have Huebner Keynote?? NKTH and ITD and MISZ would all be happy to be collaborators and would do marketing for this.

CitiBank might fund and be sponsor (I mentioned \$10,000 and Balassy said – possibly). All other US firms said they needed OK from US headquarters to provide funds but thought that might be available in modest amounts. Suggested we feature agricultural producers and Ohio & Hungarian wines at reception following the Summit!

- 4) Carolyn Balogh met with Mayor Sandor Kali of Miskolc (also a member of HU Parliament), Dr. Barbara Szarka, International Relations, and the Director of a proposed new Rock'n Roll/Science Museum. Museum will be built in an idle power plant. The director would like to work with the Cleveland RnR Museum for ideas and advice on implementation (Jenny has sent contact info). Expect 200,000 visitors/year. Miskolc industry was built on steel and coal which have all disappeared. Miskolc is rebuilding their industrial base and expanding tourism as an industry (have wonderful Cave hot baths plus new ). There are new motorways linking Miskolc to Budapest and European markets. Group also visited University of Miskolc – one of largest in HU. Highly skilled workforce, Mechatronics, electronics & automation, material science, nanotechnology focusing on material science. One of Hungary's designated development areas with funding from government and EU. American Football reps from Miskolc will be coming to Cleveland this fall. Mayor would welcome a Trade Mission from Cleveland and will write Mayor Jackson to invite him when we finalize our plans.

*\*\*\*This will be a lot of work to organize. Need to assign primary responsibility for this effort if it is decided to do it.*

*\*\*Follow up:*

- 1) *discuss with Mayor's offices and with ODOD for Trade Missions and*
- 2) *decide who is to plan and organize Innovation Summit*

## **Section J**

### **Notes on Organizations We Met With:**

#### **1) NKTH – National Office for Research and Technology**

Dr. Gyula Csopaki (gyula.csopaki@nkth.gov.hu), President

NKTH determines Hungary's R&D strategy and policies. Manages the \$50 billion HU Forint (about \$23 million) Innovation Fund.

4 main programs:

a) Knowledge HU – Centers of Excellence with areas of focus: Info Tech, Electronic Systems, Medical Systems, Biotech/Life Sciences. Research Triangle Park model of Univ/Bus collaboration. Established 19 Regional Knowledge Centers before 2004 and these are now under evaluation to decide on continuation or close. Decision rests on Centers' ability to be financially self-sufficient and on quality of research output. 6-8 new centers to be funded in '09/'10. This will have large impact on technology areas that HU will pursue and be known for.

b) Technology HU – private/public consortia headed by a company (usually an SME) . Fund these in 200 million HUF to 1 billion HUF range. Take idea to product.

c) Enterprise HU – for under 40 yrs of age entrepreneurs. Incubator program modeled on Finland's success. Get VC for firms. Jeremie program of EU is administered by NKTH. They have RFP's out now for 3-4 International Incubators .

d) International HU – S&T agreements with 34 countries, including US.

\*\*\*NKTH is a political entity. It was independent for some time under a minister with no portfolio. Under Fidesz it reported to the Minister of Culture and Education. Now under Minister of Commerce. It is viewed as ineffective by many of those we talked to – although structure is there and money is there.

## **2) *INNOSTART, National Business and Innovation Center* –**

Ferenc Kleinheincz (kleinheincz.ferenc@t-online.hu), senior advisor and Dr. Makra Zsolt (makra.zsolt@innostart.hu), business development contact.

Set up in 1994 with EU money (60%) and balance from private funds. It is one of 7 Regional Innovation Centers and is connected with the Enterprise Europe Network, an International consortium. Mission is to incubate and support start ups, to train companies and innovators on how to go to market, and to organize and run a business Angel Club. They hold meetings of this Club regularly. They charge companies for all their services. Main technical areas: medical, info and communication tech, energy (biomass, wind, geothermal).

Dr. Makra mentioned a technology that obtains methane from swine manure, Biogas. They do have access to some start-up businesses and can make introductions for us if the technology looks interesting. We should make OBIC aware of them.

## **3) *Hungarian Association for Innovation – (MISZ)***

Dr. Laszlo Antos (innovacio@innovacio.hu), Managing Director

18 year old org. 60 million HUF/year from Government, member fees and company sponsors. 300 members who are companies, or legal entities such as NKTH, universities, various environmental, economic or energy associations, etc.

Mission: Innovation is the key to Economic Development

Help evaluate technology policy for Parliament and media. Use 100 volunteers who are experts to provide analyses and info. In '08 rendered 20 policy papers and opinions and 300 media citations.

Reactive NOT proactive

Sit on committees for government

Lecture on Innovation and Technology

Advocates for S&T in schools – have sent students to INTEL ISEF in US since '95.

Give an Innovation Prize for best new HU Co. annually

Provide S&T HU exhibits at all EU events

Run a national competition for Best Business Plan by a start up

Publish a free Newsletter to 1800 individuals/companies/etc. Also has web version but all in HU. **NOTE:** This is an excellent way to reach innovators and SME's in HU

They are an umbrella org, not sector oriented. Innovation is their umbrella.

Suggested we meet with Semelweisse Univ (Dir. Mr. Tulassy), Eotvos Univ (Mr. Gyorgy Antoni, head Tech transfer office). Will be happy to introduce us.

Will be happy to publicize ALL our efforts – including Trade Mission and Summit

*\* Follow ups:*

Liked Resident Affiliate program at CWRU and will publicize – *JGB sent contact info and Coticchia contact*

Liked and interested in CCF Innovations and Vienna Cardiac Center. *Asked for more info on both – Tom Sudow/Chris Coburn*

A very good contact and impressive association and director. Seemed to be much more organized and effective than some of others – see his quote in **Section B**.

#### **4) AMCHam – American Chamber of Commerce in Hungary**

Dr. Gusztav Bienert (gusztav.bienert@amcham.hu), President

Started in 1989 (by Charles Huebner!). One of oldest and most effective in Europe

600 members – US and non US

Mission: Help Hungary's global competitiveness. Focus on SME's

They are an influential lobby group

Comments by Bienert:

HU economy is in trouble because of social spending and “living beyond their means”

US investment in HU is very important for them

Huge boom in R&D in last 2 years

Clean coal technology is big market in HU – they want and need energy independence (gas comes from Russia thru Ukraine)

Geothermal has big potential – hot springs all over

Entrepreneurial/risk attitude is present now

HU very smart, esp in math and science. Told us story of KURS, a HU company that was best in world for data recovery after 9/11 from computers in WTC.

*\*Follow up:*

*Will send us list of their SME's in sectors of interest to us. Need to identify what we want.*

#### **5) MMZS, Association of Hungarian Plastics Industry**

Peter Ollar, ([op@huplast.hu](mailto:op@huplast.hu)), Director.

They are a trade association for Hungarian plastics companies. There are about 400-450 plastics related companies in Hungary. Have a website that outlines some interesting projects that are currently being developed, e.g. Polycon, an electrically conductive plastic and Wheylayer, a replacement material for ethylene vinyl alcohol. Hungary currently has a shortage of skilled plastics workers to fill the needs of the member companies. There is a big concern that once workers are trained they will leave HU and go to neighboring countries, esp Austria to work for greater salary. They would like to keep in contact so mutually beneficial plastics related interests could be explored between Ohio and HU plastics companies.

*\*Follow up:*

*They requested info on the purpose and mission of PolymerOhio. This already exists on our CHDP website, so Lél Somogyi will inform them.*

## **6) Zoltan Bay Foundation for Applied Research, Institute for Nanotechnology**

Dr. Andras Pungor ([pungor@bznano.hu](mailto:pungor@bznano.hu)), Director and Hd. of Dept. of Metrology.

Zoltan Bay is one of the country's Regional Knowledge Centers. Do applied research in nanotechnology, including medical devices and instruments. Setting up a joint venture/jointly owned company for technology transfer, using novel biocompatible polymers from the Puskas group (Prof Puskas is co-inventor of the polymer used on the Taxus coronary stent.) She sees great potential in an Ohio/Miskolc based JV.

*Follow up:*

*High priority – Judit is key contact and will work with PolymerOhio and UAkron on JV*

### **Section K**

## **Notes From US businesses We Met With:**

### **1) CitiBank Europe –**

Mr. Laszlo Balassy ([Laszlo.balassy@citi.com](mailto:Laszlo.balassy@citi.com)), Managing Director and CEO of Corp & Commercial Banking, HU, So Central Europe and Baltics

Graduate of St. Ignasius school in Cleveland!

On board of AMCHam and Fulbright commission. *Wants info on CWRU program and Coticchia contact. JGB sent.*

His comments:

HU was “star” of Eastern Europe in ‘90’s with effective goulash economy

2002 – government social programs killed optimism and “entrepreneurial spirit” in HU. Now no self-determination.

HU needs to focus on improving manufacturing capability and work on energy independence

See his quote in **Section B.**

*Interested in OU/Pecs Simonyi Center – Kevin to provide info*

*Interested in considering an angel network for HU – Kevin to follow up*

Liked our mission – might consider funding Summit in 2010. (\$10,000 figure was mentioned).

Batara Sianturi, Citi Country Officer for Hungary and Cluster Head for Hungary and Serbia (Balassy’s superior) is graduate of CWRU – and active alum. He joined us for dinner one evening with Balassy. Liked our mission very much. Encouraged us – as did Balassy and all US Co reps to continue.

*Time is NOW for HU.*

### **2) PolyOne Belgium –**

Christoph Palm ([Christoph.palm@polyone.com](mailto:Christoph.palm@polyone.com)), Gen. Mgr. Color & Additives, Europe

Flew in from Belgium to meet with us (thanks to Steve Newlin, CEO!).

Gave us a great overview of Company in Europe. Said a US company interested in setting up operation in EU needs 20% of budget for legal/tax, etc advice. PolyOne would be happy to share experience and “how to” for OH companies interested in EU.

Liked our mission. Will be on lookout for companies in their polymer supply chain that might be of interest to us.

### **3) Ernst & Young –**

Margaret Dezse (Margaret.dezse@hu.ey.com), Partner, Transaction Advisory Services

Sees company opportunities all the time for those they work with but many are in need of seed/angel funds

\*\*\* Working now with a really interesting 3D company looking for US market from Semelweisse Univ. Company’s technology can be used for medical diagnostics or for consumer product use and they are needing advice on market opportunities for both.

*\*\*Follow up:*

*JGB put her in touch with Lél Somogyi (former E&Y employee in strategic planning) who is an IT expert. He is following up but needs NE Ohio contact as well to assist.*

### **4) Squire, Sanders & Demsey, LLP –**

Kevin Connor, Private Equity

See all info under Most Important Contacts, Section E.

*\*Follow up:*

*Decide on feasibility of trip in Oct, 2009 to meet with private equity contacts.*

## **Section L**

### **One Innovation Transfer TO Hungary From NE Ohio:**

Mr. Bob Gulyas in Cleveland asked us to set up a contact for him with Prof. Gyorgy Balazs (balazs@vbt.bme.hu), Head of the Department, Civil Engineering and Construction Materials and Engineering Geology at Budapest University of Technology and Economics. He knows of a material invented by a Hungarian American that minimizes shrinkage in concrete used for bridges and roads. Material is already in use in US on over 700 bridges, including the Hi Level Bridge in Cleveland. Prof Balazs said such a shrinkage prevention material is of GREAT interest. He is not aware of any such material now in use. He is in contact with all businesses in HU in construction materials because of his position at BUTE. He will read materials I brought with me and get back to Mr. Gulyas.

*\*\* Follow ups: Lél Somogyi knows Mr. Gulyas and will follow developments. Could be good PR for our over-all mission of cooperation between HU and NE Ohio!!*

## Section M

# Report on Hungarian Companies Interviewed May 11-13, 2009

Prepared by Steve Jolly, with edits and additions by Judit Puskas and Lél Somogyi

## Summary:

Of the polymer or polymer utilizing production innovators and companies identified for interviewing in Hungary, most show promising potential for economic development follow-up that may result in the establishment of Ohio-based operations.

Of the 16 innovators and companies, all but 2 are candidates for some type of follow-up that can result in economic cooperation and business relations.

**At least 7 innovators and companies are ready to move into the US market, either directly, with a partner through a joint-venture, or in some licensing arrangement. The remaining 7 show promise of pursuing various business arrangements.**

*Overall, the potential indicated is quite high.* No assessment is made here of dollar value of the potential.

Tempering this assessment is the fact that for these potentials to be realized, a high level of economic development effort needs to be expended to follow through and make the right connections to businesses, partners and other State or development resources.

## Recap of Companies and Innovators Grouped Alphabetically by Potential:

<i>Company/Innovator</i>	<i>Business and Cooperation</i>	<i>Potential for Realization</i>
Corvus Aircraft	Production facility	High
Kompozitor Plastics Developing Ltd.	Joint-venture or Ohio-based company	High
Pauger Carbon Trade	Production facility, joint-venture	High
Star*Plus	Joint-venture	High
TBK Bio-Diesel	Process licensing	High
Elastico Kft.	Supplier, contractor	Medium to High
Hunest Biorefinery Kft.; NitroKemia	License of bio-refinery	Medium to High
MOL Group, TVK	Seeking to license additive recipes	Medium to High
Mol-Lub, Mol Group	Joint-venture or distributor	Medium to High
QuattroPlast	Expanding sales	Medium to High
BorsodChem	Selling license or technology	Medium to High
Miniplaszt	Supplier, contractor	Low to Medium
3P Cluster	Seeking development partner	Low
PannUnion Packaging	Supplier, toll manufacturing	Low
BC Ablakprofil	-	Very Low
Ongrofol & Ongropack	-	Very Low

*Detailed information on each company and innovator follows in alphabetical order.*

## Company name: 3P Cluster

**Contact name 1:** Dr. Peter Csonka, Cluster coordinator; no email; 76/485-505

**Contact name 2:** Ferenc Zubonyai, innovation group leader; [zubonyai@pemu.hu](mailto:zubonyai@pemu.hu); 26 561 217

**Nature of Business:** 3P is a technology development and commercialization cluster. There were a number of technologies that they discussed.

**Technology A** - using finely ground recycled rubber from tires as an enhancing additive to thermoplastic materials.

**Technology B** - IDMX is a dynamic mixer claimed to be more efficient than other mixers. Have prepared PC-ABS composites with good physical properties. Desires a development partner. No prototype.

**Technology C** - have developed sensor technology where a pressure is measured and flow properties are calculated for injection molding applications. Looking to continue development and commercialize the sensors.

**Technology D** - Looking for Wood Plastic Composite (WPC) technology, both PVC and PE resin based. Not sure if the ground rubber recyclate will be used in WPC.

**The company is:**     Publicly owned     Venture backed     Privately owned

**Specific interests:** Based on what we were able to discern, they would like information about WPC, PVC and PE based. They are looking for investment to continue IDMX mixer studies. They are looking for development partner for the ground rubber as thermoplastic additive.

### Follow-up Steps:

**30 days:** Follow-up to see how related to other opportunity with BorsodChem.

**60 days:** None

**1 year:** None

**Opportunity Ranking:**    A (< 18 months to results) \_\_\_\_\_  
  B (> 18 months to results) \_\_\_\_\_  
  C (interest, keep in touch)   X  

### Conclusions:

- Potential for economic cooperation exists, but on a fairly conservative scale.
- Additional follow-up is needed to understand relationship to other contacts and BorsodChem.

**Company name:** BC Ablakprofil

**Contact name 1:** Attila Herczeg

**Contact name 2:** Sandor Nagy

**Nature of Business:** Manufacturing of energy-efficient window frames based on German technology. The base resin is PVC.

**The company is:** \_\_\_Publicly owned \_\_\_Venture backed \_\_\_**X**\_\_\_ Privately owned

**Specific interests:** The technology is very specialized to the European market.

**Follow-up Steps:**

**30 days:** None

**60 days:** None

**1 year:** None

**Opportunity Ranking:** A (< 18 months to results) \_\_\_  
B (> 18 months to results)\_\_\_  
C (interest, keep in touch\_\_\_ **X** \_\_\_

**Conclusions:**

- This company does not offer a realistic opportunity for economic cooperation.

## Company name: BorsodChem

**Contact name 1:** Istvan Velki, Head of Development and Technology Department; velkii@borsodchem.hu; (+36) 48-511-103;

**Contact name 2:** Dr. Kalman Marossy, Senior Researcher; drmaross@borsodchem.hu; (+36) 48-511 524; Mobile (+36) 30 2898107; also Department Head, Polymer Program, University of Miskolc

**Contact name 3:** Dr. Katalin Leskovics, R&D Engineer; leskovicsk@borsodchem.hu; +36 948 0 511-211/29-58

**Nature of Business:** BorsodChem is a PVC resin manufacturer supplying Central Europe. BorsodChem has several interesting technologies that they have or are in the process of developing. The technologies include partially cross-linked PVC with TPE characteristics; PVC nano composites based upon CNT, clays, CaCO<sub>3</sub>, Al<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub>. Use of nano composites in pipe formulations was found to improve vicat temperature and thermal stability.

**The company is:**  Government-owned  Publicly owned  Venture backed  Private

**Specific interests:** BorsodChem has an interest in exporting the PVC based TPE into North America and possible North American production of the product.

### Follow-up Steps:

**30 days:** Contact for update on company status

**60 days:** Explore possibility of selling license or technology to interested company in US

**1 year:** None

**Opportunity Ranking:** A (< 18 months to results)   
B (> 18 months to results)   
C (interest, keep in touch)

### Conclusions:

- Explore possibility of selling license or technology to interested company in US. Company does not plan to use this technology at the present. Some divisions of the company are under producing and over capacity. Some divisions are for sale, as is the corporation; it may be >1 year before fate of company known. (Balogh)
- The technology appears viable. They have produced material using carbon nanocomposites (cones) for stability, which considerably reduces cost of existing and competitive compounds. Have applied for patent. (Balogh)
- The Borsod Chem additive technology may be of interest for an Additive Masterbatch company (e.g., PolyOne, ASchulman, Ferro and others) that service the PVC pipe market segments. A survey of the various PVC pipe manufacturers would tell if the described benefits have a cost reduction or improved performance interest. If Borsod Chem has an interest in licensing what they have developed, then the various masterbatch (concentrate) companies could be approached. (Jolly)

**Company name:** Corvus Aircraft

**Contact name 1:** Csaba Farkas, Design and Stress Engineer; [csaba.farkas@corbus-aircraft.hu](mailto:csaba.farkas@corbus-aircraft.hu) ; (+36) 76/427-263

**Contact name 2:** None

**Nature of Business:** Corvus is a designer and manufacturer of high technology small (two-seater) and racing aircraft. Corvus uses carbon-fiber composite materials due to the higher strength to weight ratio vs. aluminum. Their aircrafts use ~40% less fuel than the competitors' models. Corvus also manufactures LS and Ultra-light aircraft kits.

**The company is:**     \_\_\_Publicly owned     \_\_Venture backed     \_**X**\_ Privately owned

**Specific interests:** Corvus has limitations on the acceptance of Hungarian based aircraft certifications. Corvus mostly goes through other countries' aircraft certification processes, usually, USA's FAA. Corvus is interested in having a production facility in Ohio. Corvus is ready to move immediately.

**Follow-up Steps:**

**30 days:** Determine if any interest with an Ohio company to establish a partnership with Corvus

**60 days:** None

**1 year:** None

**Opportunity Ranking:**     A (< 18 months to results) **X**  
                                  B (> 18 months to results)\_\_\_\_  
                                  C (interest, keep in touch)\_\_\_\_

**Conclusions:**

- Corvus is interested in having a production facility in Ohio. Corvus is ready to move immediately. Definite candidate for serious follow-up efforts.

**Company name:** Elastico Kft.

**Contact name 1:** Kerekes Ferenc, Owner; [elastico@euroweb.hu](mailto:elastico@euroweb.hu) ; 46/506-648, 06-20/478-0257

**Contact name 2:** None

**Nature of Business:** Elastico is a manufacturer of 2-component polyurethane parts. These parts include: wheels, load buffer assemblies, and industrial pipe cleaning pigs (tools).

**The company is:** \_\_\_ Publicly owned \_\_\_ Venture backed \_X\_ Privately owned

**Specific interests:** Elastico is looking for additional business to add to their 2-component polyurethane manufacturing lines. Is willing to work with an Ohio partner. Elastico is currently supplying wheels to InvaCare, an Elyria-based mobility chair company.

**Follow-up Steps:**

**30 days:** Determine if any interest with an Ohio company to establish a partnership with Elastico.

**60 days:** Share information about Elastico's capabilities with Ohio companies. Determine if Elastico's assisted mobility chair wheel manufacturing connection can be leveraged to other manufacturers.

**1 year:** None

**Opportunity Ranking:** A (< 18 months to results) \_\_\_  
B (> 18 months to results) \_X\_  
C (interest, keep in touch) \_\_\_

**Conclusions**

- Definitely candidate for follow-up and matching to Ohio company.
- Potential for economic cooperation exists, but on a fairly conservative scale.
- Elastico is a low cost producer of 2-component polyurethane parts and the potential is good for Ohio companies to use their services.

## Company name: Hunest Biorefinery Kft.; NitroKemia

**Contact name 1:** Dr. Zsolt Bodnar, Managing Director; [bodnar.zsolt@invitel.hu](mailto:bodnar.zsolt@invitel.hu) ; (+36) 30 9 313 973

**Contact name 2:** None

**Nature of Business:** Hunest Biorefinery has developed a complete grain to finished product bio-refinery plan. Hunest Biorefinery can utilize second quality wheat to ferment into lactic acid (LA), then convert lactic acid into polylactic acid (PLA). The planned operation will then convert the PLA into finished articles. The plans for the bio-refinery can be separated into portions, each portion being an enterprise on its own. High value lactate esters can be prepared and used as solvents. Hunest Biorefinery indicates that other starch-based feedstocks have been evaluated and found to be suitable source of glucose, e.g., sweet sorgum.

**Technology A-** Hunest Biorefinery has license opportunities for complete bio-refinery, growing wheat through conversion of PLA in finished articles. (\$150 MM euros)(20,000 ton/year)

**Technology B-** Hunest Biorefinery believes that a plant established “just to convert starch into lactic acid” is economically feasible. EU plans on building 5 lactic acid to PLA polymerization plants in the near future. (\$50 MM euros)

**Technology C-** Hunest Biorefinery has patents pending on a special bacterial strain for converting starch/glucose into lactic acid in high yield.

**The company is:**    \_\_\_ Publicly owned    \_\_ Venture backed    \_\_\_ Privately owned  
Owned by the Hungarian government.

**Specific interests:** License of the bio-refinery to an Ohio based development consortia if interest in Hungary and China does not progress.

### Follow-up Steps:

**30 days:** None

**60 days:** Pass information onto interested Ohio concerns, International Paper and The Andersons.

**1 year:** None

**Opportunity Ranking:**    A (< 18 months to results) \_\_\_  
                                  B (> 18 months to results) \_\_**X**\_  
                                  C (interest, keep in touch)\_\_\_\_\_

### Conclusions:

- Definite candidate for serious follow-up efforts, with involvement indicated from both the State of Ohio and commercial business entity or consortia.
- License of the bio-refinery to an Ohio based development consortia if interest in Hungary and China does not progress. (Jolly)
- Very high profile and high technology economic development possibility. (Somogyi)

**Company name:** Kompozitor Plastics Developing Ltd.

**Contact name 1:** Dr. Geza Kecskemeti gke@kompozitor.hu

**Contact name 2:** Sandor Nagy

**Nature of Business:** Manufacturing unique chimney liners based on glass fiber mat and furane-based resin. The prepreg is inserted into the chimney, blown to fit the chimney profile and steam cured in place. The company started with residential homes, but is expanding into industrial chimneys up to ~40 m. Unique patented technology.

**The company is:** \_\_\_Publicly owned \_\_\_Venture backed \_\_\_**X**\_\_\_Privately owned

**Specific interests:** Joint venture or Ohio-based company to introduce the new technology to the US market.

**Follow-up Steps:**

**30 days:** Get more detailed plans from Kompozitor.

**60 days:** Follow up

**1 year:** Follow up

**Opportunity Ranking:** A (< 18 months to results) X  
B (> 18 months to results)\_\_\_\_  
C (interest, keep in touch)\_\_\_\_

**Conclusions:**

- Definitely candidate for follow-up and matching with industry group, individual investors, existing business in the chimney lining business as manufacturer or distributor.
- Joint venture or Ohio-based company to introduce the new technology to the US market. (Jolly)
- High probably of successful entry due if the right local US candidate identified to work with them. (Somogyi)

## Company name: Miniplaszt

**Contact name 1:** Laszlo Szokolai, Managing Director; [kereskedlem@miniplaszt.hu](mailto:kereskedlem@miniplaszt.hu) ; (+36) 56/568-410; mobile-+36-30/9439-448

**Contact name 2:** None

**Nature of Business:** Miniplaszt is a manufacturer of multi-layer films used to seal various packaging products. Miniplaszt offers a 3 layer film used in the construction market segment and a 5 layer film used in the food packaging market segment. The films are prepared from casting or blown film processes. Miniplaszt is best at the 5 layer films. Their business is divided into construction (40%), pharmaceuticals (30%) and food packaging (30%). Miniplaszt has its own sales force of approximately 50 sales-persons and uses approximately 50 distributors to cover Eastern and Southern Europe. Additionally, Miniplaszt excels in 8 color decorative printing. Standard polymer processing.

**The company is:**    \_\_\_Publicly owned    \_\_\_Venture backed    **X** Privately owned

**Specific interests:** Miniplaszt is willing to offer their sales and distributors to an interested Ohio film company. Miniplaszt would welcome the opportunity to toll manufacture for an Ohio based multi-layer film company pursuing business in Europe. Make Ohio companies aware of Miniplaszt and their capabilities.

### Follow-up Steps:

**30 days:** Follow-up seeking clarification of first steps based on their thinking after the interview.

**60 days:** Make Ohio companies aware of Miniplaszt and their capabilities.

**1 year:** None

**Opportunity Ranking:**    A (< 18 months to results) **X** \_\_\_  
  B (> 18 months to results)\_\_\_\_  
  C (interest, keep in touch)\_\_\_\_\_

### Conclusions:

- Definite candidate for possible entry into US market or for economic cooperation in a variety of scenarios.
- In a business segment where significant competition exists in US, but offers unique ability to handle 8 color decorative printing.

**Company name:** MOL Group, TVK

**Contact name 1:** Dr. Gabor Nagy, Technology and Development Manager; [ngabodr@tvk.hu](mailto:ngabodr@tvk.hu) ; (+36) 49-521 375; Mobile (+36) 70 373 9009

**Contact name 2:** Peter Suba, Product and Application Development Manager; [subap@tvk.hu](mailto:subap@tvk.hu); (+36) 49-521 501; Mobile (+36) 70 373 7573

**Nature of Business:** TVK is a producer and distributor of polyethylene, LDPE and HDPE, and polypropylene resins. TVK uses Phillips-Chevron and Mitsui catalyst technology for the HDPE resins, 400 Kton/year, in a 1986 plant. They use Lyonndell-Basell technology, Spherapol, for PP production, 300Kton/year, net from two plants. TVK uses Lyonndell-Basell technology in a 60Kton/year LDPE plant. They serve the Central, Eastern and some Western Europe market with their products. Their product lines are the standard commercial grades of polyolefins.

**The company is:**    \_\_X\_\_ Publicly owned    \_\_ Venture backed    \_\_\_ Privately owned

**Specific interests:** TVK is interested in polyolefin polymerization technology transfer to update the current technologies, new catalyst systems. Looking for additive recipes for their products.

**Follow-up Steps:**

**30 days:** TVK to send modified list of current development projects to see if there is an Ohio based technology to assist them.

**60 days:** None

**1 year:** None

**Opportunity Ranking:**        A (< 18 months to results) **X**  
                                      B (> 18 months to results)\_\_\_\_\_  
                                      C (interest, keep in touch)\_\_\_\_\_

**Conclusions:**

- Potential candidate for Ohio company interested in selling or licensing technology to them for use in the European marketplace.
- Potential for economic cooperation exists, but on a fairly conservative scale.

**Company name:** Mol-Lub, Mol Group

**Contact name 1:** Jozsef Toth, Lubricant Product Manager; tothjo@mol.hu; (+36) 34-526 205

**Contact name 2:** None

**Nature of Business:** Mol Lubricants manufactures a variety of special lubricants, oil additives, plastics stabilizers (thioesters and carbamates) and organo-aluminum compounds.

**Technology A-** Mol Lubricants have a family of organo-aluminum compounds that are used in the organic solvent printing ink business as a thickener or gelling agent. More user friendly vs. the competing organo-aluminum thickeners.

**The company is:**     Publicly owned     Venture backed     Privately owned

**Specific interests:** Mol Lubricants wants to establish distribution and/or manufacturer's representative in Ohio. The manufacturer's representative would cover the organo-aluminum gelling agent product-line for Mol Lubricants. They have had several attempts to establish collaborations, disclosed information, and did not succeed.

**Follow-up Steps:**

**30 days:** None

**60 days:** Get more information on possible directions to pursue in setting up contacts and partnering.

**1 year:** None

**Opportunity Ranking:**    A (< 18 months to results)   
                                  B (> 18 months to results)   
                                  C (interest, keep in touch)

**Conclusions:**

- Definite candidate for possible entry into US market, with the assistance of the right, trusted partner.
- Potential for economic cooperation exists, but on a fairly conservative scale.

## Company name: Ongrofol and Ongropack, BorsodChem

**Contact name 1:** Georgina Czok, HR Manager; [georgina.czok@borsodchem.hu](mailto:georgina.czok@borsodchem.hu) ; (+36-48) 320-822;

**Contact name 2:** None

**Nature of Business:** Ongrofol and Ongropack are trade names for the two product lines of this company. Ongrofol is PVC resin based blister packaging film, containers and food packaging rigid films. Ongropack is the PVC resin based sheeting suitable for a variety of applications, including POP displays, wall insulation for construction and thermoformed sheet for automotive door skins. Most of the Ongropack products are foamed.

**The company is:**    \_\_\_Publicly owned    \_\_\_Venture backed    \_\_X\_\_ Privately owned

**Specific interests:** There were no specific interests expressed. Ms. Czok was called into at the last moment to “stand-in” for the owner due to a business crisis. I imagine that Ongrofol and Ongropack would like to grow their businesses by providing products to Central European customer that are too far away from Ohio based manufacturers.

### Follow-up Steps:

**30 days:** Make Ohio film companies aware of Ongrofol and Ongropack capabilities.

**60 days:** None

**1 year:** None

**Opportunity Ranking:**    A (< 18 months to results) \_\_\_  
                                  B (> 18 months to results)\_\_\_  
                                  C (interest, keep in touch \_\_X\_\_

### Conclusions:

- This company probably does not offer a realistic opportunity for economic cooperation.

## Company name: PannUnion Packaging

**Contact name 1:** Szabo Balazs, CEO; [balazs.szabo@pannunion.hu](mailto:balazs.szabo@pannunion.hu) ; (0036-94) 522-501; mobile-(0036-30) 349-5695

**Contact name 2:** None

**Nature of Business:** Pannunion is a plastics manufacturing company that provides multi-layer films, conducts thermoforming and decoration of shapes, and blow-molds single layer containers. Pannunion has revenues of \$40-45 MM euros with 15 % profit. There are 6 manufacturing sites, 3 within Hungary and one each in Ukraine, Romania and Serbia. Pannunions specializes in the rotogravure printing onto plastics. Pannunion has within it's product line 3-7 layer barrier type film, some based upon EVOH. A current customer in the thermoforming business unit is Unilever. The blow molding operation uses polypropylene, polyethylene and PET resins in mono-layer construction.

**The company is:**     Publicly owned     Venture backed     Privately owned

**Specific interests:** Pannunion has an interest is increased growth and participation in the Central European region. Will consider toll manufacturing for an Ohio company with business in Europe for opportunities that fit into their manufacturing capabilities.

### Follow-up Steps:

**30 days:** Make Ohio film and packaging companies aware of PannUnion's capabilities.

**60 days:** None

**1 year:** None

**Opportunity Ranking:**    A (< 18 months to results)   
                                  B (> 18 months to results)   
                                  C (interest, keep in touch)

### Conclusions:

- Potential for economic cooperation exists, but on a fairly conservative scale.

## Company name: Pauger Carbon Trade

**Contact name 1:** Hajdu Balazs, Director of Sales; [balazs.hajdu@paugercarbon.com](mailto:balazs.hajdu@paugercarbon.com); mobile-+36-30/332 7415

**Contact name 2:** Hajdu Gergely, Managing Director; [gergely.hajdu@paugercarbon.com](mailto:gergely.hajdu@paugercarbon.com); Mobile- + 36 20 475 8849

**Nature of Business:** Pauger Carbon is in the business of building carbon fiber composite hollow shapes for the recreation market segment. Pauger manufactures light weight and high strength masts and spinnaker poles for the racing yacht market segment. The yachts are 30- 65 foot at the waterline, notably the 44 foot racing circuit class. These shapes are intended as replacement parts and performance upgrades vs. the current hollow aluminum masts and spinnaker poles. The masts range is length from 30 to 47 feet.

**The company is:**     \_\_\_Publicly owned    \_\_Venture backed     \_\_**X**\_ Privately owned

**Specific interests:** Pauger has an interest in establishing a joint venture or collaboration with an Ohio company to manufacture masts for the North American sailing yacht market segment. They expressed high interest.

### Follow-up Steps:

**30 days:** Send list of company attraction questions

**60 days:** None

**1 year:** None

**Opportunity Ranking:**     A (< 18 months to results)   **X**    
                                  B (> 18 months to results)         
                                  C (interest, keep in touch)       

### Conclusions:

- Very high interest by and potential for company to enter market through an Ohio-based operation.
- Interested in pursuing a joint venture or collaboration with an Ohio company to manufacture masts for the North American sailing yacht market segment.
- S. Jolly will discuss Pauer with an Ohio company that has expressed initial interest. (Jolly)

**Company name:** QuattroPlast

**Contact name 1:** Gyula Sarosi, Production Director; [sarosi@quattroplast.hu](mailto:sarosi@quattroplast.hu); (+36 1) 230 3802

**Contact name 2:** Ferenc Deak, Director of Marketing; [deak@quattroplast.hu](mailto:deak@quattroplast.hu); (30) 944 8625

**Nature of Business:** Manufactures nylon 6 based polymers. Has an antistatic grade of nylon 6.

**The company is:**    \_\_\_ Publicly owned    \_\_\_ Venture backed    \_\_X\_\_ Privately owned

**Follow-up Steps:**

30 days: Currently sells nylon 6 for cast film applications in USA now.

60 days: Discuss the potential with an Ohio based resin distribution company and determine the level of interest.

**Opportunity Ranking:**    A (< 18 months to results) \_ X \_\_\_  
                                  B (> 18 months to results) \_\_\_  
                                  C (interest, keep in touch) \_\_\_

**Conclusions:**

- Since they are already in the US, some possibility exists to help them enhance their presence and work with Ohio companies.

**Company name:** Star\*Plus

**Contact name 1:** Gyorgy Toth, [tothgy@starplus.hu](mailto:tothgy@starplus.hu) ; (+36) 46-584-060; Mobile +36 (300 9350 711)

**Contact name 2:** None

**Nature of Business:** Star\*Plus is in the injection molding business serving the outdoor furniture market segment. Star\*Plus has the Flair product line (originally Dutch) of outdoor plastic furniture. The base resin is polypropylene.

**The company is:**     \_\_\_ Publicly owned     \_\_\_ Venture backed     \_\_X\_\_ Privately owned

**Specific interests:** Star\*Plus is interested in a joint venture with an Ohio company to produce the Flair product line. Star\*Plus would send tools and dies, and assembly know-how to support production. They would generate jobs in Ohio.

**Follow-up Steps:**

**30 days:** Determine if there interest from any Ohio company. Initial interest has been expressed by an Ohio company to assist in finding a suitable JV partner.

**60 days:** Company visit-mutual.

**1 year:** None

**Opportunity Ranking:**     A (< 18 months to results)   X    
                                  B (> 18 months to results)         
                                  C (interest, keep in touch)       

**Conclusions:**

- Good potential to produce economic cooperation with an Ohio company.
- Interested in a joint venture to produce their Flair product line for the US market.
- Initial interest has been expressed by an Ohio company to assist in finding a suitable JV partner. (Jolly)

## Company name: TBK Bio-Diesel

**Contact name 1:** Janos Thesz, Owner (Transchem); [thesz@t-online.hu](mailto:thesz@t-online.hu); (+36 1) 22 63 702

**Contact name 2:** Bela Boros, Zoltan Kiraly

**Nature of Business:** TBK Bio-diesel has technology to convert vegetable oil directly into a bio-diesel grade of fuel using ethylacetate and triacylglycerides (TAG). Inventors have Hungarian and EU patent applications submitted for using modified TAG in diesel engines. They have garnered a number of prizes at various inventor exhibitions of IFIA. Their process offers a number of advantages over other processes, specifically overcoming the “glycerol-syndrome.”

**The company is:**    \_\_\_Publicly owned    \_\_Venture backed    \_**X**\_ Privately owned

**Specific interests:** Ready to sell or license their technology to North America. They have already licensed their technology to a South African company, Biofuelson, but only for Africa.

### Follow-up Steps:

**30 days:** Working with Lél Somogyi. Discuss options to go to Soybean Council to further test and evaluation application of the process. Initial favorable contact has been made with the Ohio Soy Bean Council. Jacomet, Somogyi and Jolly to meet with OSBC.

**60 days:** TBK to publish a paper describing this technology. Ready to work directly with interested parties.

**1 year:** Obtain Hungarian venture grant to complete testing and then + 6 months obtain EU acceptance as bio-diesel fuel. Realizing US opportunity would modify plans.

**Opportunity Ranking:**    A (< 18 months to results) **X**  
                                  B (> 18 months to results) \_\_\_\_\_  
                                  C (interest, keep in touch) \_\_\_\_\_

### Conclusions:

- With appropriate follow-up and involvement, this opportunity has a strong potential for economic cooperation and long term results. (Somogyi)
- Involvement by State of Ohio and various groups involved in biodiesel development and commercialization the best route to realizing commercialization (Somogyi)
- Inventors brought into interview process by Lél Somogyi who is primary follow-up contact, with interest already expressed by PolymerOhio to connect with Ohio Soybean Council and other parties. (Somogyi)
- Inventors state a number of key advantages of which a few are: Every atom of biomass triglyceride is utilized for fuel purposes; Process results in 30% more internal oxygen content resulting in better combustion with less smoke/soot; Universal process for all kinds of vegetable oils/animal fats; “TBK” can be produced in presently operating bd plants; Continuous process with lower manufacturing costs; Wasteless, eco-friendly technology, with no sewage, and mild reaction conditions; Uses glycerol of present processes as feedstock. (Somogyi)

## Section N

# Kevin Aspegren's Feedback and Follow-ups

*Trip to Hungary May 10-15, 2009*

## Meeting Summaries:

**US Commercial Services Briefing** – Met with several employees, most of who are transitioning this summer back to US or other posts

*Key Takeaway – Keep in mind that Hungarian elections take place early May 2010. A late May 2010 Innovation Summit needs to keep in mind that new government will have only been in place a couple of weeks*

*Action Item(s) – Meet with new Commercial Services employees that arrive in Budapest June/July 2009*

**AmCham meeting with Gusztaf Bienert, President.** We received a summary update of social, political, business climate in Hungary. Much emphasis being placed on Debrecen.

*Key Takeaway – Venture Capital (pre seed, angel, 1<sup>st</sup> round, still largely absent in Hungary). Still not exactly sure of the services they could provide for a 2010 Innovation Summit*

*Action Item(s) – If we need list of companies that could do business in Cleveland (NE Ohio), he can provide.*

**ITD Hungary – Mr Gyorgy Retfalvi, CEO** – Afternoon meeting and evening dinner discussions. ITD is really focused on establishing trade between Hungary and other countries. The Development is rather a new emphasis even though it has been in their name since the beginning. Looking to develop equity capital network, perform business development (network opportunities) for existing businesses, they do not do business plan, consulting, etc...

*Key Takeaway – ITD has 57 offices outside of Hungary. In the US, they have offices in DC, Chicago, LA. They need a Cleveland presence*

*Action Item(s) – Follow up on getting an ITD Cleveland rep. Continue relations with Honey Poszgai, Mark Mautner, Judit Hoffman*

**Citibank - Meeting with Laszlo Balassy – CEO.** Great guy, Clevelander!!!. We had an office meeting, dinner meeting, and invited back to his office the next day for a meeting with Jonathon Lee. Jonathon is a US entrepreneur who is recently sold his business and is now looking to get into the Solar industry. (Service, Mfg, Installation, product, and PPA)

*Key Takeaway – If we need help, he is willing. Citibank should be able to sponsor/fund future trip. It just cannot be called a Trade Mission. He likes the Innovation Summit concept. Laszlo is on the board of AmCham.*

*Action Item(s) – Dinner with Laszlo and Family late June. Follow up with Jonathon Lee on bringing the solar mfg technology to NE Ohio*

**National Office for Research and Technology – Meeting with Gyula Csopaki, President.** They focus on Capital, New Innovation, Rural Acceleration, and University Tech Transfer.

*Key Takeaway – They have set agenda, direction and funding come from Government. Getting onto their “agenda” will be tough.*

*Action Item – Keep in touch, follow up. Perhaps bring a technology to them in partnership with BUTE or National Academy of Sciences. Invite them or have them co-sponsor a 2010 Innovation Summit*

**Andras Simonyi – Fmr Hungarian Ambassador to United States –** Great lunch meeting. Andras wants to collaborate/partner. His focus is better commercialization ties to the US and feels the Hungarians have not capitalized and lost opportunity with the US. He wants to get it back. Good friend now with Charles Simonyi (no relation). He remembered Jenny, Glenn, Carolyn immediately. Eva Aspegren set up the meeting via a great personal friend they share, Gabor Kornei.

*Key Takeaway – Let’s find an opportunity, define action items, get it done. Andras’s style is very refreshing.*

*Action Item – Kevin & Eva meet with Andras and wife (Nada) in late June for dinner in Budapest. Andras and Charles are having a picnic party mid June on Charles’s property in the countryside.*

**PCP (T-Technology) Polymer company meeting from Pecs, HU.** Meeting arranged by Honey Poszgai from ITD-Pecs. Very promising technology that is able to recycle in a self contained system plastic. The oil bi product can be sold as fuel.

*Key Takeaway – Still need a little help with the Business Plan, very promising technology.*

*Action Items – ITD –Pecs is sending the patent information, Simonyi Center will finalize the business plan during June/July.*

## **General Conclusions:**

A Trade Mission is not the right concept for what Cleveland wants to accomplish. Trade Mission means to US Commercial Services that existing companies in the US and Hungary want to begin import/export relations. If we are looking to bring businesses from Hungary to Cleveland, US Commercial Services is not setup to do this. They like the idea, as do potential corporate sponsors of hosting an Innovation Summit. We could hold sessions on what it means, how to commercialize innovation, create sustainable companies, set up operations in NE Ohio, or for NE Ohio companies to have an office/presence in Hungary. We could also arrange ahead of time for 10 polymer, 10 medical device, 10 Biotech, 10 ? type companies to send business plans to NE Ohio prior to the Innovation Summit for vetting. These companies could then present their business to a panel during the trip to Budapest. ITD Hungary has agreed to source the Hungarian businesses and have them prepared for such sessions. I will work more on this concept if there is general buy-in.