



**Confindustria Italia
Italian IAOP Chapter
Eastern European IAOP Chapter**



Padua, Italy May 6th, 2013

The Field of Information Systems in Belarus and Ukraine

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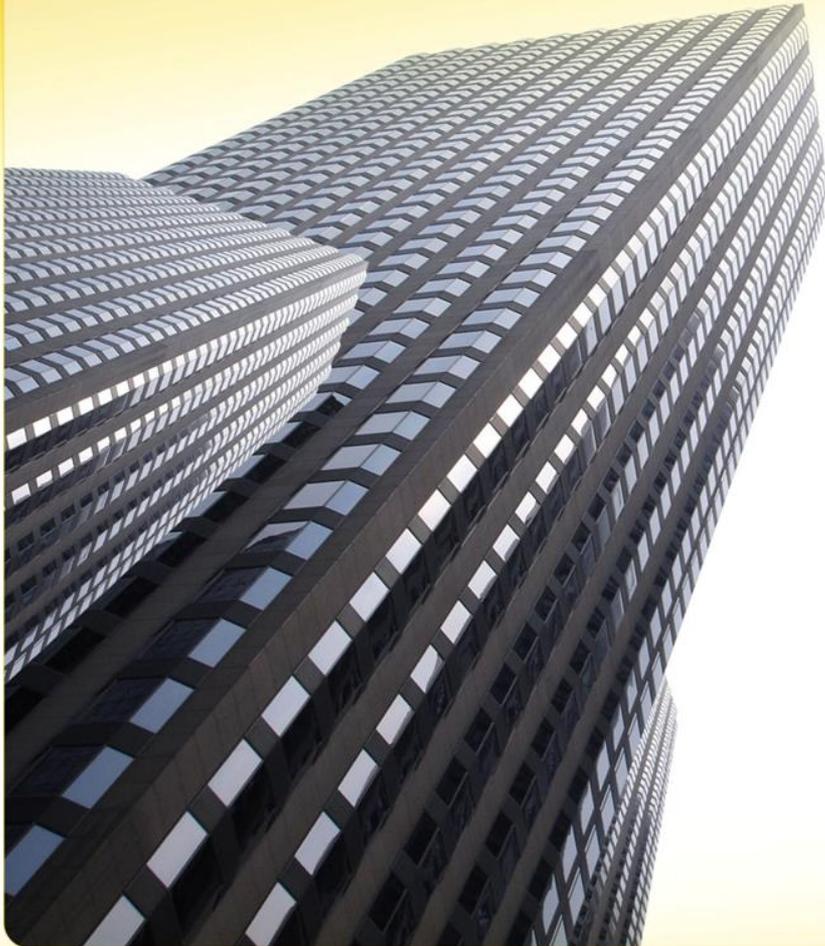
www.intetics.com

AGENDA

- **Belarus & Ukraine Country Overview**
- **Technological Environment**
- **Business Environment:**
 - **Cultural Proximity**
 - **Government Support & Legal Conditions**
 - **IP Security**
- **Education & Talent**
- **Cost Savings**
- **Time & Travel**
- **Summary**



Intetics: a brief intro



- Established: 1995
- Head Office: Chicago, IL
- Global Locations:
 - Minsk, Belarus
 - Kiev & Kharkov, Ukraine
 - Dusseldorf, Germany
 - Rep. Offices in Canada, UK, Czech Rep.
- Over 400 employees
- Customers in 30+ countries

- ISO 9001:2008 & ISO 27001
- 70% Certified Staff
- Microsoft & Oracle Gold Partner
- 2011-12: #1 Outsourcing Rising Star
- 2006-12: Top Outsourcing 100
- 2007-12: Global Services 100
- European IT Excellence Award
- NOA Outsourcing Award
- CRN Fast Growth 100, Inc.500/5000
- Top 50 in Chicagoland, Software 500



Belarus: Country Overview

Country Profile:

- **Capital:** Minsk
- **Population:** 9.5 Million
- **GDP in PPP:** US\$121 billion
- **GDP per capita in PPP:** US\$12,700
- **Official languages:** Russian, Belarusian

Outsourcing Industry Snapshot:

- **IT outsourcing market volume:** US\$ 0.6 billion
- **Number of IT outsourcing companies:** Over 500
- **Number of specialists involved in IT outsourcing services industry:** 16,000

Macroeconomic Conditions:

- In 2008 Government started a program to attract more foreign investments
- 59th economy in the world (2011)
- Currency: Belarusian ruble (BYB/BYR)
 - *Exchange rate: US\$1 = Br8650*
- World organizations:
 - CIS
 - WB, IMF
 - European Bank for Reconstruction and Development
 - NACC
 - GATT
- Economic Freedom Ranking 2011: 154 (Italy – 83, China – 136, India – 119)
- Ease of Doing Business 2012: 58 (Italy: 73, China – 91, India – 132)



Ukraine: Country Overview

Country Profile:

- **Capital:** Kyiv
- **Population:** 46 Million
- **GDP in PPP:** US\$290 billion
- **GDP per capita in PPP:** US\$6,300
- **Official languages:** Ukrainian, Russian, English

Outsourcing Industry Snapshot:

- **IT outsourcing market volume:** US\$ 1.1 billion
- **Number of IT outsourcing companies:** over 1000
- **Number of specialists involved in IT outsourcing services industry:** 25,000

Macroeconomic Conditions:

- 47th Economy in the world (2011)
- Total FDI in 2011 was \$45 billion
- Currency: Hryvna (UAH)
Exchange rate: US\$1 = ₴ 8.13
- Trade organizations:
 - CIS
 - GUAM
 - WTO
- Economic Freedom Ranking 2011: 164 (Italy – 83, China – 136, India – 119)
- Ease of Doing Business 2012: 137 (Italy: 73, China – 91, India – 132)



Things you probably didn't know...

George Gershwin wrote one of the world's most famous songs, "Summertime", after being inspired by an old Ukrainian lullaby called "Sleep Is Tiptoeing About" performed by the Ukrainian National Chorus.

Metro-Goldwyn-Mayer (MGM) Pictures was founded by Louis Bart Mayer, born Lazar Meir from Minsk, and Samuel Goldwyn, born Schmuel Gelbfisz from Warsaw.

Four immigrants from Belarus, brothers Voronovy, founded the Warner Brother Studios in 1918

European countries print euro bills using paper called Belarusian flax.

Ukrainians invented a plane with the largest freight-carrying capacity in the world – the An-225 "Mriya". Originally it was designed for spacecraft transportation. Now it specializes in freight haulage.

Ukrainian "Yuzhmash" (Dnepropetrovsk) produces the most environmentally friendly launch vehicles in the world.

Belarus is the home to the highest number of buried treasures discovered each year (ahead of almost all European countries).

...and of course Belarus is the treasure chest to some of the best IT talent

Nathan Shwartz, the founder of Timberland, was born in Odessa to a family of shoemakers .



Technological Environment



Historical:

- The “Silicon Valley” of the USSR
- Used to manufacture over 50% of computers and computer parts for the USSR
- Software industry hub since 1960s
- Belarusian IT experts and companies have been involved in the design and construction of space stations, global communication systems, R&D projects for the military, and advanced nuclear developments projects.

Current:

- **Telephone lines in use:** 4+ million
- **Mobile/cellular:** 10+ million; mobile phone penetration nearly 110%
- **Internet users:** 57% of population

Historical:

- Ukraine is a leader in space flight and is among the top 5 countries in the world possessing a full technological range of a rocket based systems.
- Ukrainian city of Kharkov was the first location in Europe where the atom was split.
- Simultaneously Ukraine and Belarus became the first countries in history to voluntarily give up their entire arsenals of nuclear weapons.

Current:

- **Telephones lines in use:** 12+ million
- **Mobile/Cellular:** 49+ million
- **Internet hosts:** 234,349 (2007)
- **Internet users:** 15+ million (2011)
- In 2011 Ukraine was ranked 9th in the "**Top 10 Internet countries in Europe**"

Business Environment: Outsourcing Industry

“Per Capita Income from IT-Services Export in Belarus exceeds that of Russia and Ukraine”
– Forbes Magazine

- **Outsourcing Market Size:** 0.6 US\$ bill
- 16,000 Software Professionals
- Market Growth +21%
- 16,000 ICT graduates every year
- 50 years of software industry
- Minsk is an emerging outsourcing destination according to **Tholons 2012**
- Included in **Gartner’s Top 13 Offshore Locations 2012**

- **Outsourcing Market Size:** 1.1 US\$ bill
- 25000 Software Professionals
- Market Growth: +20%
- Ukraine awarded European Outsourcing Excellence Award for **ITO Destination of the Year 2011**
- Kyiv and Lviv included in **Tholons’ Top 100 Outsourcing Destinations 2013**
- Kyiv is amongst the **25 safest cities** for offshore/nearshore outsourcing
- Ukraine is the 4th in Top 10 countries with the **most certified IT professionals** (after US, Russia and India)
- Included in **Gartner’s Top 30 Offshore Destinations 2010** & **Top 13 Offshore Destinations 2012**

Cultural Proximity

Cultural differences are a real concern:

- Better communication allows effective governance and project management
- According to ISG (Information Service Group) 5-30% of contracts fail because of ineffective governance caused by lack of [easy] communication
- According to NOA research (UK's National Outsourcing Association) European companies are more likely to cooperate with other European companies, especially on Euro-centric products
- Over the course of 10 years **University of Alberta** researchers found that
 - 1) services that are more routine, less complex or less interactive are outsourced more to foreign countries
 - (2) services are outsourced more to countries with greater cultural proximity and some institutional quality
 - (3) non -routine, complex and interactive services are outsourced relatively more to countries with a better institutional quality and cultural proximity

Think & Work “à la Western”:

- Belarusians and Ukrainians share the same cultural and business principles with customers in Europe and the USA

Eastern European Mindset Proximity:

“In the last fifteen years *Belarus has quickly grown individualistic* with all the values of the western mind. *The country is strongly West-oriented*. An average Belarusian can laugh at the same things that American will do; *their working process and the way of making business is similar to the American and European.*” - FORBES Magazine

In 2009 Belarusian State University of Informatics and Radioelectronics (BSUIR) **created an all-English program** acknowledging the importance of **knowing English** in software development.

Cultural Differences

Are there differences between Eastern Europe and the Western clientele?

- Some cultural differences do exist...
- Self-criticism tends to be greater in Slavic cultures (“great” for Americans tends to be evaluated as “alright” for most Slavs)
- Stubbornness: if something is being done incorrectly there is an urge to fix it
- The cultural proximity and business environments are still much more similar than other outsourcing destinations, such as India or China. The differences that do exist are easily manageable.



London-Minsk: 1870 km

London-Kiev: 2130 km

London-New Delhi: 6710 km

Government Support & Legal Conditions



Supporting Organizations:

- Infopark:
www.infopark.by

- Belarus Hi-Tech Park
www.park.by

Favorable Tax System:

- IT companies are exempt from all corporate taxes, including VAT, profit, real estate and land taxes.

- Individual income tax has a fixed rate of 9% for the employees of HTP companies. That resulted in a fast boost of IT industry in the country.

- Even payroll taxes are reduced to average wage in the country, effectively meaning that payroll taxes are paid on about 30% of the wage

Supporting Organizations:

- Ukraine Hi-Tech:
www.hi-tech.org.ua

- IT Ukraine
www.itukraine.org.ua

Newly Adopted Tax System:

- Unified tax code adapted in 2010

- One of the main goals of the new system is to attract foreign investors

- Corporate income tax to be reduced to 5% for IT companies by 2014

Legal Conditions:

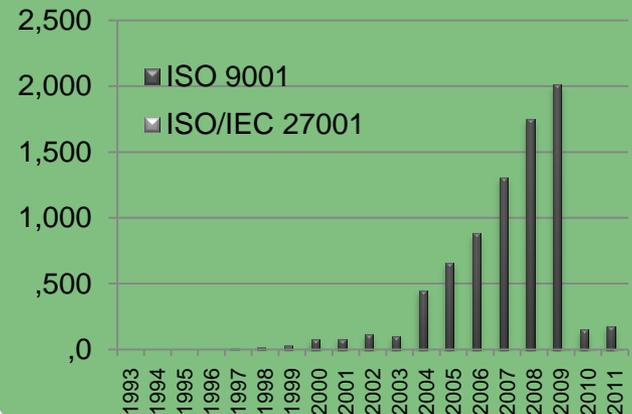
- Ranked No. 44 out of 183 countries for contract enforcement (WB 2011)

- Enforcement of contracts takes 345 days (CEE average is 402 days)

Security & IP Protection

- Need to form **trusting relationships** for efficient project management
→ IP protection an important part of trust
- Existing security associations accessible to certify IP security:
- **New Index by the US Chamber of Commerce for the Global Intellectual Property Center results:**
 - US & UK Best IP security rates
 - (23.73 and 22.40 respectively from 25)
 - BRIC countries worst IP security:
 - China: 9.13
 - India: 6.24
- Rising **ISO 9001** certifications for management standards
 - 20467 certificates given out globally in 2011
- Rising **ISO 27001** certifications for information security
 - 3588 certificates given out globally in 2011
- **European Data Privacy Initiative & Safe Harbor Certifications**
 - certifies companies that are on par with European and American standards
 - Since 1995 it has come to be seen as the most stringent certification process with regard to the use and flow of private, confidential information

Belarus



Education

- 55 universities
 - Generally a 5-year curriculum
- Spends 6% of GDP on education; ranking 30th (of 132) in global education spending
- Possibility to be trained entirely in English
- Belarus is among the top 30 countries in the world for higher education attainment and accessibility (Legatum Prosperity Index 2012) – ahead of Switzerland, the United Kingdom, India, China, as well as Japan.
- Belarusian State University (BSU) was ranked in the top 10 of programming universities worldwide based on the TopCoder challenge (*ahead of many Indian and Chinese universities*)

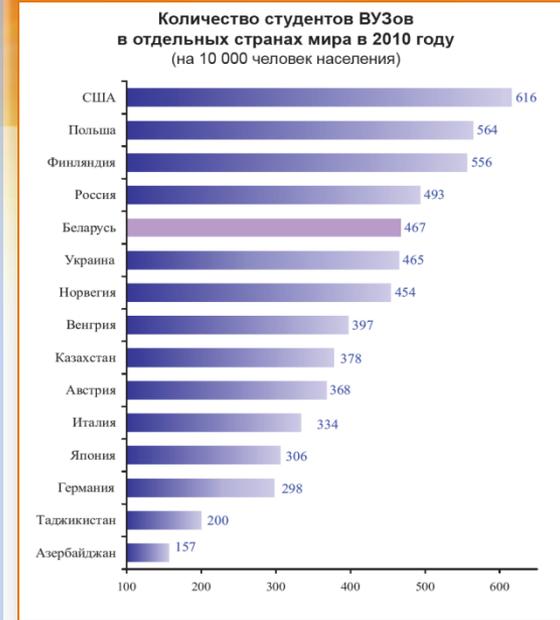
- 861 Universities
 - 84% graduation rate
 - Provides training in 74 fields and 600 specializations
- Ranked 16th from 105 countries for the total number of university students
- Ranked 46th for higher education (out of 139) in Global Competitiveness Report
- Has 6% of world's physicians, mathematicians and programmers
- Ranked 7th for the number of students pursuing technical specializations (Global Education Digest)
- Kyiv National Taras Shevchenko University was ranked as one of the top 10 programming universities worldwide, based on the TopCoder challenge (*ahead of many Indian and Chinese universities*)



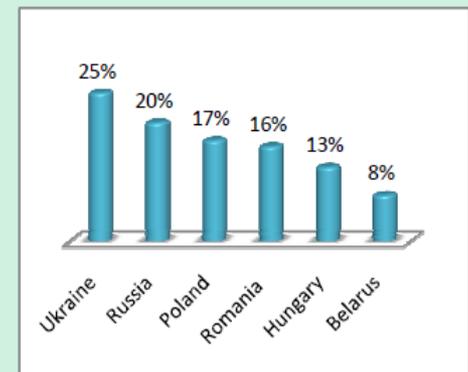
Talent Pool

- 16,000 ICT graduates every year
- For every 10,000 people there are 467 students in Belarus (4th in the world after USA, Poland, Finland and Russia)
- **Technology & Engineering is the choice of study for 1 in every 4 students in Belarus**
- 61.5% of researchers work in the field of Technology & Engineering
- Distribution of Major of Study Belarusian Students:
 - Social sciences, Business & Law: 47,283 (40%)
 - **Technology & Engineering: 29,273 24%**
 - Education: 15,109 (12.5%)
 - Health & Welfare: 5,249 (4%)
 - Agricultural studies: 9442 (8%)
 - Humanities & Arts 6,379 (5%)
 - Science: 2,719 (2%)
 - Services 4,743 (4%)
 - TOTAL: 120,197

- 30,000 ICT graduates every year
 - about 30% work in software development after graduation
- For every 10,000 people there are 465 students in Ukraine (5th in the world after USA, Poland, Finland, Russia and Belarus)
- *Lifelong learning* policy of the Ukrainian government allows over 30,000 graduates to be retrained annually
- 508,000 students enter Ukrainian technical institutions annually
- 44.6% of higher institution researchers work in the field of Engineering & Technology
- Distribution of Students by Program of Study (2010):
 - Social sciences, Business & Law: 288,265 (44%)
 - **Engineering, manufacturing & Construction: 138,010 (21%)**
 - Education: 56,531 (9%)
 - Humanities&Arts: 32,298 (5%)
 - Science: 32,795 (5%)
 - Health&Welfare: 35,343(5%)
 - Services: 30,881 (5%)
 - Agriculture: 26,881 (4%)



Percentage of annual science & IT graduates of the total annual university graduates²⁴



Innovation in Eastern Europe:

“Innovation is in their DNA!”

- The need for innovation:
 - 41% of CIOs view innovation as a key challenge (Forrester)
 - IBM research showed that from outsourcers
 - 27% are cutting-costs
 - 37% are growth seekers
 - **36% are innovators**
- *European Intelligence Report*: Ukraine & Belarus offer some of the most innovative business models, bringing value to Western Europe because:
 - a) focus on establishing long-term relationships with clients,
 - b) managing outsourced operations as if they are managed in-house, and
 - c) accelerating client’s time-to-market.



“People can often be stubborn, although in a good way. If they are given a task that is wrong, they will argue with you and say it is a short-sighted thing to do, but it means **people are thinking before doing**. The other good thing is that programmers usually have a good education in math or physics so they can often tackle problems that are technically complicated.”

- Max Ishenko in **Computer Weekly**

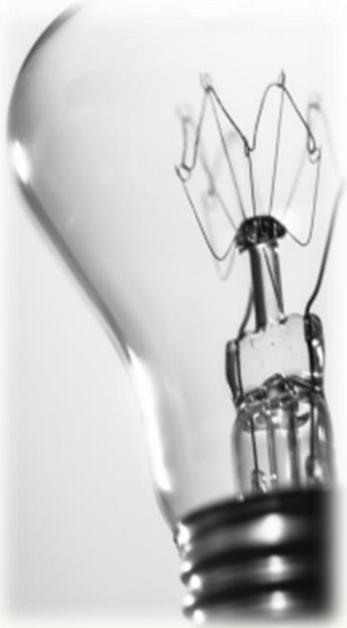
“If you have a mission impossible project in software development, send it to Belarus. Belarus focuses on the quality, preferring to hire 1 highly qualified specialist instead of 10 novices.”

- Drew Guff in **Forbes Magazine**

Innovation in Eastern Europe:

“Innovation is in their DNA!”

- *European IT Intelligence Report 2010* finds Ukraine most attractive innovation destination; closely followed by Belarus
- Eastern Europe strongest in:
 - a) the highest IT outsourcing (ITO) market value in the CEE region (as of 2009);
 - b) the lowest Total Cost of Ownership (TCO) of outsourced IT operations;
 - c) the biggest IT workforce involved in ITO industry;
 - d) the strongest R&D base;
 - e) the best grasp of innovation and emerging technology.
- Eastern European engineers can provide innovation in every project:
 - Improving Electronic Document Management Systems (EDMS) like Microsoft SharePoint saved 13mill hectares of Ukrainian forest in 2012 – reduced 40% of paper usage
 - Clients appreciate when their programming team adds extra features when they make sense: like making an application for routine downloads (*real Intetics example*)



Cost Savings:

- Comparable to labor costs in many Asian countries
- Hourly labor wages in the IT sector are on average 5% to 36% lower in Belarus than in many other outsourcing locations in Central and Eastern Europe
- Minsk is ranked 185 out of 300 cities in the "Cost of Living Index 2011," where 1 is the most expensive.

- Lower wages than EU members (including other EE countries like Poland, Hungary, Czech Republic, Slovakia and Romania)
- The annual salaries of IT professionals in the Ukraine range from \$18,000 to \$48,000, depending on the job profile. Wages vary between regions.
- Kiev ranked as most expensive region; Kharkov the next biggest city is about 15% cheaper

Western Companies are likely to save **40 - 60% of their total in-house IT spending**

- According to *European IT Outsourcing Intelligence Report*



“For IBM...the total cost of its employees in India used to be about 80% less than in America; now the gap is 30-40% and narrowing fast.”

– Bundeep Rangar,
The Economist, January 2013

Cost Comparison

- 44% of outsourcers still consider cutting costs as the main reason to outsource
- Eastern Europe is seen as less cost efficient than India or China, but that is likely to change:
 - rising salaries of these countries drive outsourcing costs up:
 - World-at-Work* estimates salary rise of 10.7% for India and 8.8% for China

Cost comparison:

All in USD/hr*	Belarus	Ukraine	India	China	Germany	USA
Hourly Rates (max-min)	38-12	42-14	35-10	40-12	90-30	90-31
Average Hourly Rate for Software Engineer	23	24	18	22	52	61
Project Manager	29	32	25	31	77	80
Senior Developer	26	28	20	25	64	72
Junior Developer	18	19	14	16	34	31

*Hourly rates estimated using BLS, ILO, Payscale.com and ITOnews.eu

...plus transportation costs...

Time & Travel

All prices in USD**	Belarus	Ukraine	India	China
Roundtrip* from New York JFK (\$; hrs)	821; 12 hrs	767; 12 hrs	1181; 19 hrs	943; 16 hrs
Roundtrip* from London Heathrow (\$;hrs)	390; 4-6 hrs	281; 3-6 hrs	718; 9-14 hrs	742; 13-20 hrs
Visa Needed	Yes	No	Yes	Yes
Time Zone	EET (UTC +2)	EET (UTC+2)	IST (UTC +5.30)	DST (UTC +8)

*Roundtrip to the capital city

**Cheapest ticket, prices estimated 2 months in advance

Ukraine was considered one of the top 10 countries to visit in 2012. The Lonely Planet travel guide recommended that tourists get acquainted with the “great unknown destination in Europe” – and by great they were not only referring to Ukraine’s status as the largest country in Europe by area.

...all of these companies already vested:

ABN AMRO Bank, Air Canada Vacations, Bank of America, BMW, Barclays, Bosch GmbH, British American Tobacco, CheckPoint, Contentum, Daimler AG, Deutsche Bank, eBay, European Patent Office, Expedia, Fujitsu, GE, HTC, HP, Hubert Burda Medien, IBM, Lenovo, Microsoft, National Hockey League, Oracle, Peugeot, Philips, Renaissance Capital, Samhammer AG, Samsung, SanDisk, SAP, Scania, Sears, Siemens AG, Standard Bank of South Africa, SugarCRM, Teradata, Coca-Cola, Thomson Reuters, Toyota Motors, University of California Berkeley, Viacom/MTV Networks, Walt Disney

Alcatel Genesys, AstraZeneca, Atos Origin AG, Autodesk, Avid, BEKO International, Bloomberg, BMC Software, BNP Paribas, Boeing, Bombardier, BOSCH, CISCO, Comoto, Dell, Deloitte and Touche, Deutsche Bank, DHL, eBay, EDB Business Partner, Electronic Arts, Enviance, HP, IBM, IKEA, Jaguar, Kodak, Kyriba Corporation, Land Rover BMU, Mercedes Benz, Microsoft, Mobile TeleSystems, MTV, Namco Networks, Nokia, Nokia Siemens Networks, Novell, Parexel International, Quest Software, Rabobank, Samsung, SEB bank, Sky, Skype, Sony, Sopera GmbH, Symantec, Telcordia, Trend Micro, T-Systems, USAID, USP networks, VAB Bank, Volvo, Volkswagen, Wincor Nixdorf GmbH

So...Why Eastern Europe?

- Cultural proximity and western mentality
- High-quality engineering professionals
- Full intellectual and creative rights immediately vested with clients
- Strong education system
- Deep scientific tradition
- Innovative environment and mentality
- Competitive rates
- Nearshore location
- Governmental support
- Mature and growing outsourcing market



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THANK YOU!

Q & A

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