

# Adm tm CVD Amorphous Diamond Coatings for Extreme Performance Applications

#### **Intelligent Surface Engineering tm**

Chris H. Walker B.Eng (Hons) DipM MCIM AlMechE CEO, Director

Chair - Department of International Trade Policy - Federation of Small businesses (FSB)







#### **Background- Milestones**

#### Founded in 2005

- UK Patented Granted
- First development customer
- Lease signed on UK facility
- 1st Production Chamber
- Facility completed
- ISO 9001/ISO14001
- 1st Series production
- US Patent Granted
- European Patent
- 1st Bespoke production m/c
- BEEA's Small Business of the year
- Export 55-70% business

May 07 Dec 07

Jan 08

Apr 09

Sep 09

Mar 10

Aug 10

Dec 12

Feb 14 Mar 15

July 15

Sept 17











#### **Problems We Solve**

- Wear
- Friction
- Thermal Conductivity
- Extending product performance









#### **Key Business Areas**

- Chemical Processing
- Oil and Gas Exploration
- Electronics
- Industrial Processing
- Aerospace











## Key Advantages - (USP's)

- Extreme Hardness
- Excellent adhesion
- Thicker than other coatings
- Low friction
- No pre or post processing
- Engineered to application
- Low process temperature
- Thermal conduction/electrical resistance











#### Where are our customers?







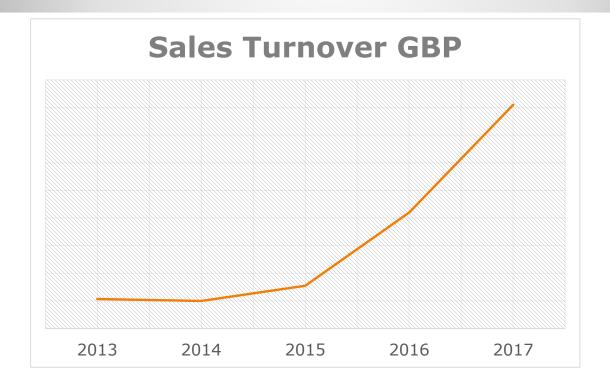
### **Export Marketing Strategy**

- Market based approach
- Identify Key players/ market leaders
- Where are they located?
- Opportunities to meet
- Conferences/Exhibitions/ Geographic Centres
- Utilise resources
- Key Decision makers
- Communication Channels
- Revisit regularly
- Engage via Email/Social Media/ Webinars etc





# Sales Progress







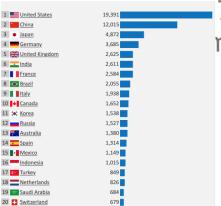
### **Export Challenges**

- Trade Barriers open/hidden
- Cultural Understanding
- Effective use of resources
- Maintaining momentum
- Engaging with customers face to face
- Sticking to your plan
- Paperwork / Administration
- Legislation UK / Overseas

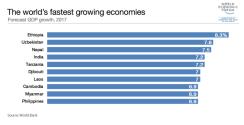




- 195 Countries in the world
- WTO has 164 members and 23 observers
- 5 main trading blocs; EU,G20,NAFTA,APEC,Cairns Group
- EU has 28 countries (14%)
- 5 of the top 2( United States
- Worlds largest



7 in EU nies 2017





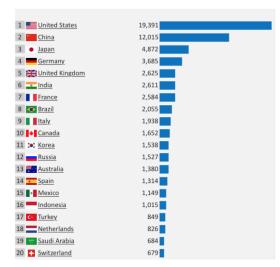


- 195 Countries in the world
- WTO has 164 members and 23 observers
- 5 main trading blocs; EU,G20,NAFTA,APEC,Cairns Group
- EU has 28 countries (14%)





Worlds largest economies;



•Only 5 (Ex UK) of the top 20 economies 2017 in EU





World's fastest growing economies 2017

# The world's fastest growing economies Forecast GDP growth, 2017 Ethiopia 8.3% Uzbekistan 7.6 Nepal 7.5 India 7.2 Tanzania 7.2 Djibouti 7 Laos 7 Cambodia 6.9 Myanmar 6.9 Philippines 6.9





#### Life after Brexit

- Opportunities outside the EU represent greater growth than inside
- Only 1 extra trading block
- Enthusiasm for trading with UK; e.g. Commonwealth
- Trade barriers will continue to exist, visible and invisible
- SME's nimble and flexible to deal with change
- Own government reduce red tape; increase support
- Challenges but Opportunities





#### Thank You

Diamond Hard Surfaces Ltd chris@diamondhardsurfaces.com www.diamondhardsurfaces.com @diamondhardsurf

#### References :

The economist magazine The WTO



