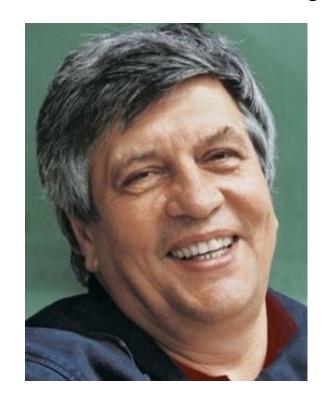


### **Opportunities for German Companies in Renewable Energy in Russia**

EUROSOLAR Russia, Berlin, George Kekelidze 23.11.17





Herman Scheer Zhores Alferov

### Non commercial activities



- 1. Conferences and Round tables and permanent workshops together with Ministry of Energy, Ministry of Industry and Trade, Cities and Regional governments
- 2. RE promotion Projects together with German Embassy in Moscow and KFW
  - MEMORANDUM FOR YAKUTIA AND NORTH REGIONS
  - RE PROJECTS LAUNCHING PLATFORM
- 3. Research Projects (Fraunhofer ISE, NTI)
- 4. Contest (Knowledge Energy) with Universities and member companies



#### Renewable Energy (RE) in Russia as Industry was formed in 5 years



November 2007	Addition to the Law on Electro energy with first mentioning of support for RE
January 2009	Decree 861-p sets target of 4.5% of RE for 2020.
May 2013	Decree 449 - setting rules for wholesale energy market (Federal level)
September 2013	First Tenders auctioned for 525 MW
January 2015	Decree 47 - support of Regional Projects in RE
July 2015	RE Target set at 4.5% for 2024
June 2017	Competition shown at the Tender Auctions – 30% price decrease
Total RE Projects to be supported by Federal laws – 6 GW, already auctioned 4,7 GW in Solar, Wind, Small Hydro	
Solar, Wind, Small Hydro, Biogas, Hard Waste, etc.	

Information source: Vygon Consulting & Eurosolar Russia

### Commercial activities



- 1. GO2RU Business Development
- 2. Entry to the Market, hands on support
- 3. Exhibitions, and business contact support
- 4. No Tax risk Infrastructure support
- 5. Support in setting country strategy for Corporations and SME
- 5. Commercial representation of selected projects

# Difficulties for EU companies in Russia (may become opportunities for SME)



- 1. High cost of capital for Russian customers and currency risks
- 2. Sanctions OPPORTUNITY for technology transfer for SME, not difficulty
- 3. Straight "sales" approach of the "best products"
- 4. Understanding of R&D support importance
- 5. Cultural differences
- 5. Local Partner (person, Individual Entrepreneur)

## Local Content (Localization) - Solar, Wind, Small Hydro



- Si crystalline SOLAR LOCALIZATION EXAMPLE (70%)
- Ingots 20%
- Wafers 15%
- Solar cells 25%
- Module Assembly 5%
- Invertors 12%
- EPC 23%





- 1. Cutting Edge Technology Heterojunction + Smart Wire
- 2. Flexibility in adaptation of Customer needs ( PECVD)
- 3. Consistency and Patience to understand non-standard case
- 4. Key to success Right Team
- 5. Project on the Radar screen of top management
- 5. Time and Funds spent on R&D together with the Customer
- 6. Helping Customer to approve Technical and commercial decisions with shareholders (Rosnano & Renova)















# Other Success Stories in Russian RE (incl. SME) and opportunities



- 1. great eyes measuring equipment
- 2. Interfloat solar glass
- 3. Phoenix Contact electronics
- 4. SMA Inverters
- 5. Singulus equipment for cell manufacturing
- 6. Asus Germany Printing units in solar cell manufacturing
- 6. Jonas & Redman Automation
- OPPORTUNITIES
- 1. JOINT RESEARCH PROJECTS WITH TWO SOURCES OF FUNDING
- 2. ENERGYEFFECTIVNESS PROJECTS, Grid and Smart Grid Projetcs
- 3. SMART CITIES, TORs, Industrial Parks.
- 4. Regional Development (Decree 47) and 15 kw Residential Decree

# RE opportunities in City Infrastructure



Moscow City 15% of land is Environmentally Protected territory



# RE in Transport infrastructure







## Parks and Recreation Centers







#### CONTACT DETAILS



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