

COOPERATION WITH RUSSIAN AEROSPACE MARKET – POSSIBILITIES AND CHALLENGES

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Level III Services

If your company implements or uses a system of employee certification with NDT Level III, we can help you with each point of this difficult process.



Inspection Services

Our inspectors have many years of experience from hundreds of projects located all over the world.

INTRODUCTION

- I would like to demonstrate you a real story of possible **access to the Russian market** and what it could be expected from this huge and perspective East European market.
- I would like to discuss or to present a possibility how to behave and how **to treat challenges of the Russian aerospace market** from EU countries.
- The presentation is based on the **long term experience** with this market. Therefore it would be beneficial to explain the stones of this basement.

BRIEF INTRODUCTION OF ATG COMPANY – STARTING POINT 1

ATG is an **engineering company** dealing with following products:

- **NDT** (Non Destructive Testing)
- **Welding**
- **TPI** (Third Party Inspection)
- **Plant Inspection** including corrosion engineering and remnant life assessment of technical devices
- **Manufacture of composites** for aerospace market in daughter company LA composite

ATG PHILOSOPHY

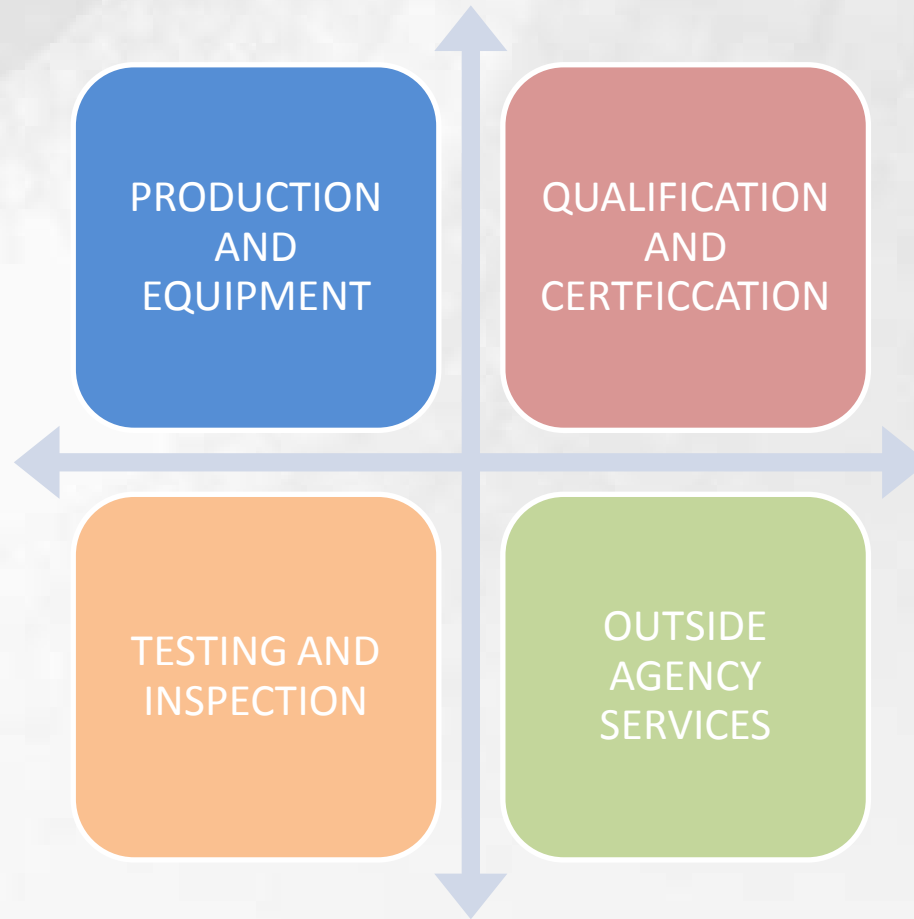
ATG philosophy is to deliver **the whole/complete special process** and it means following:

- **Responsible person**, who is a manager of the special process (for example NDT Level 3) and is able to manage the whole process
- **Qualified operator staff** for the special process – NDT Level 2 and 1
- **Qualification and certification process** – for aerospace according to EN 4179/NAS410
- **QMS** (Quality Management System) including system for personnel qualification (Written Practice for NDT), mandatory rules for all NDT methods (Written Procedures) and calibration and confirmation system
- *Right HW* for the special process (ATG is a designer and manufacturer of NDT equipment/systems for all NDT methods)
- Right and high quality **consumables**

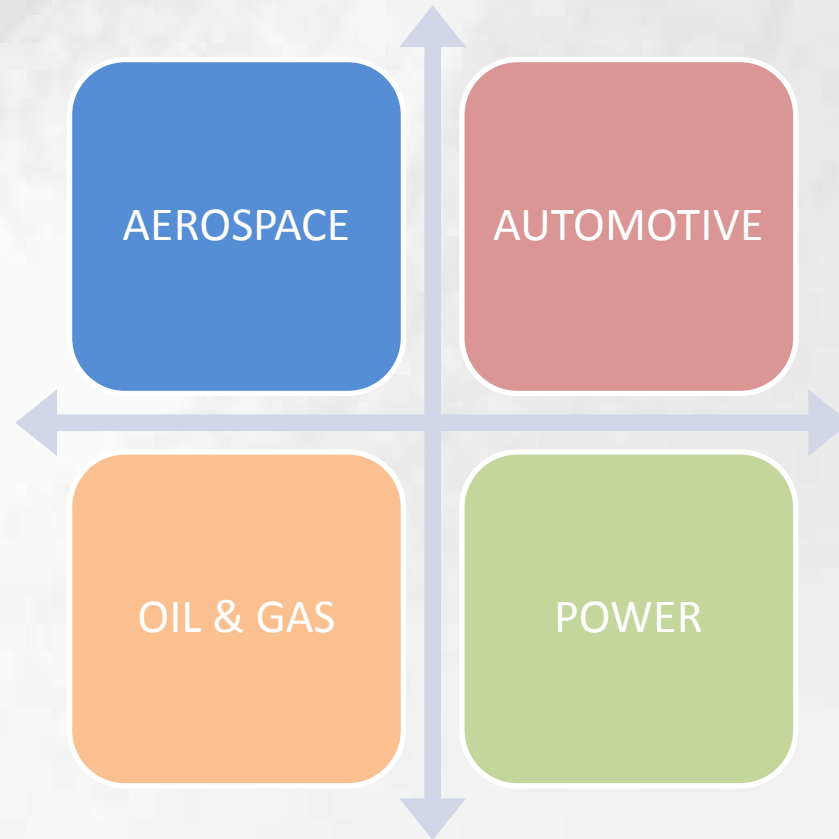
ATG STRATEGY

- ATG is able to deliver **the whole system or only parts** (one from 1-6) of this system with participation of **partners** as for example there is Chemetall as a supplier for MPI, FPI consumables.
- The main strategy of ATG is to use full **networking scheme** with mutual benefits derived from comparative advantages of all participated partners, because nobody is able to solve everything.

ATG GROUP PRODUCT PORTFOLIO



INDUSTRIAL SECTORS COVERED



ROLE OF SPECIAL PROCESSES IN BUSINESS DEVELOPMENT – STARTING POINT 2

Role of special processes

Good business means to have an access to the special processes, which can give a **comparative advantage** against a competition.

Special process can be:

- NDT
- Welding
- Surface treatment
- Chemical treatment and we can follow NADCAP definition

ROLE OF SPECIAL PROCESSES IN BUSINESS DEVELOPMENT

Without **availability of own special process** it can be forgotten everything regarding cooperation and participation on the international Aerospace market (for somebody is not so clear).

Nevertheless the possession of special process is not everything, what is requested for successful business

- This special process shall **be acceptable for the Customer** (it means quality, delivery terms, long term stability)
- The Customer shall need/request outside deliveries and it is possible with high probability on the **open market** only, where the supply chain is not stable
- The **open market can absorb** new capacities

Where is the open market and market expecting/welcoming my capacities – it is a basic/fundamental question

OPEN MARKET

The open market can be defined in general as a market, **where are not strictly defined long term rules for cooperation** with stable partners and the quick access is able.

- The open market can be derived from **new open territories** (the open territory can be derived from history or from recent relationships see Russia/Ukraine) with own OEM projects

or

- **New market segments** inside of aerospace industry (Part 21 x 145)

or

- **Combination of 1, 2**

OPEN MARKET - SOLUTION

The possible solution is on the table and it is following:

- New territories as **Russia, Ukraine** and new open countries as Iran,
- New industrial segments as **maintenance and refurbishment/upgrade – MRO (EASA Part 145)**
- Or both 1 and 2 together

- **It is right challenge for all new companies or companies focusing for new markets in the aerospace industry.**

RUSSIAN AEROSPACE MARKET – A BRIEF DESCRIPTION

The base of character of Russian aerospace market is derived from the history and tradition.

Part 21

They have own **OEM** (which cannot be separated from the world market) for civil aviation, for aircraft/helicopter engines and metallurgical companies for special metals and alloys (e.g. VSMPO, Elektrostal, VILS, SMP etc.)

Approval organization is **VIAM**

Part 145

MRO organizations, also for other Russian speaking countries (Kazachstan, Belorusya,Uzbekistan....) and East Asia market.

MROs cover for air transport fleet with 600-700 A/C (A320/ B737)

Not focussed yet on refurbishments and upgrades

MAIN CHALLENGES FOR THE RUSSIAN MARKET

- Russian manufacture availabilities in all kinds of manufacture for aerospace industry are **unlimited**
- To fulfill requirement for **keeping of modern technologies** and to be in time is the main request
- **Russian aerospace market/providers shall cooperate with international market**
- Russian territory is **huge** and requests aerospace transport is **enormous**, therefore **inversely it shall work**

POSSIBLE DOORS FOR RUSSIAN AEROSPACE MARKET ACCESS

Special processes:

- Russian processes are **not fully equivalent with world standards**, therefore it is a problem to exchange products easily
- **mutual exploitation** by Russian and world production especially is complicated
- It was caused by long term **isolation of Russia and technological embargo**

POSSIBLE DOORS FOR RUSSIAN AEROSPACE MARKET ACCESS

Special processes **are not comparable** with special process practice in following items (different interpretation and understanding):

- **Responsible person** – Level 3 is not in the most of cases equivalent to the standard Level 3
- **Qualified operator** staff for the special process – NDT Level 2 and 1, operators are not qualified according to EN4179/NAS standards, it is a problem to explain what is the Employer certification
- **Qualification and certification process** – for aerospace according to EN 4179/NAS410
- **QMS (Quality Management System)** – procedures are approved by independent body without responsibility to the Employer,
 - approval process is enormously complicated, expensive
 - mutual use of more systems is very difficult
- Right **HW** for the special process

NECESSARY CONDITIONS FOR START OF ACTIVITIES ON THE RUSSIAN MARKET

- be familiar with **Russian environment**
- convenient **Russian partner**
- knowledge of **Russian language**
- be able to offer **missing part/parts** of the special process
- be able to **enlarge the offer** not only for 1 process or simple product (combination of composites, welding ...)
- **Networking scheme derived from special processes**

FEATURES OF RUSSIAN MARKET

- necessary to understand that whole Russian aerospace production is always considered as **dual purposed (civil and military)**, therefore much of technological and applications docs are classified or inaccessible
- therefore **NDT equipment should often be dual purposed** and follow Russian and world standards
- strong bid approach for **state-owned companies**.

CONCLUSIONS:

- Russian market is huge and challenges for EU are enormous
- Russian industry shall be more diversified from dependency on oil and gas
- All kinds of industry shall be joined with world development, it means the Russian industry shall cooperate and therefore shall introduce world standards for special processes
- Russia expects both sides way of cooperation
- Better conditions can be prepared by more complex product with use of networking scheme

Thank you for your attention

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