





## Zoz-TDC Center Sendai

## **ABOUT THE CENTER**

The goal of the Zoz-TDC Center is to promote Zoz technology and business as well as to support the entire Zoz Group in Japan as well as to develop advanced and most frequently nanostructured materials on site. Additionally a small scale manufacturing of the same is offered which is oriented in the range of several up to a few hundred kilos per month. This all is done after the opening and partly in cooperation with the Tohoku University nearby at Sendai.

## The Zoz-TDC Center focuses on:

- | Mechanical Alloying | High Energy Milling | Reactive Milling
  - and additionally provides:
  - common compaction and consolidation as well as HIP, MIM, CIM and SPS
  - | Plasma Coating Techniques
  - | materials characterization, SEM, TEM, BET, laser diffraction etc.

by utilizing Zoz global infrastructure and by means of close co-operation with local universities in order to offer solutions in materials science and process engineering in applications like nanocrystalline & amorphous materials, ODS, MMC, MCC, CCC as well as M/C-Polymer compounds in the field of advanced materials for industry, life, energy and nature-saving.

## PRESENT HIGHLIGHTS

|High Performance Cement at super-fast setting times (a few minutes) and super-high strength (up to 1 GPa according to ASTM) by dramatic particle size reduction and surface activation.

|Anti-corrosive Paint based on Zinc-Flake that can be manufactured in a super-fast and in this case also very cost effective process by HEM and can insitu be alloyed, e. g. black zinc-flakes, Zn-Al, Zn-Ni etc.

|Super-Light-Weight materials, particularly Zentallium® (grain-size-stabilized high-strength aluminum utilizing Carbon-Nanotubes) and affiliated materials.

| Manufacturing process and equipment für Li-Ion-Battery electrode materials of the 3rd generation (cathode + anode, ZoLiBat®)

Hydrogen-Storage Technology, nanostructured solid state absorber materials (e. g. Hydrolium®), tank-systems (H2Tank2Go®) and "Power to Gas to Fuel"















