



# Turning Innovations Into Success

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## **Beneq - background**

Beneq is a new company that will be formed on the basis of existing Nextrom industrialization service business area by means of MBO.

In Nextrom, the business concept has been developed since the spring of 2004.

The infrastructure is based on and provided by Nextrom including for example the ISO certified operational model and IT infrastructure.



**Beneq**

Beneq is an industrial equipment manufacturer with new business concept.

Beneq acts as a business facilitator adding value for high-tech companies (i.e. technology partners). Beneq serves its partners by industrializing proven technological innovations and prototypes into professional industrial equipment for global markets.

Beneq's role in the partnership is to design, manufacture, market, sell, and service the industrial equipment whereas the technology partners provide the needed technology and process know-how.

In the first phase, Beneq will be addressing the market of industrial equipment for producing functional surfaces with latest technology, typically utilizing nanosize materials.



## **Mission**

**To act as a business facilitator adding value for high-tech companies that are looking for a partner in creating business opportunities by industrializing proven technological innovations and prototypes and by providing professional industrial equipment for global markets.**



## Added Value

### Product Lifecycle Management

- **Operational model and systems for product management**
- **ISO certified operational system**
- **Supporting IT systems in product lifecycle management, network management and after sales**

### Skilled partner network

- **Virtual enterprise model implemented and maintained globally**
  - **design engineers**
  - **manufacturing and assembly**
  - **commissioning and service engineers**
  - **sales and service agents globally**

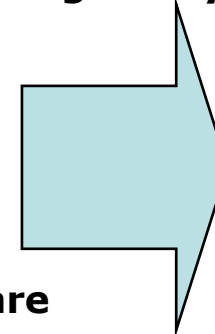
### Global business management

- **Global presence for sales, services, and customer care**
- **Experience from global industrial equipment markets**

### Cost effectiveness

- **Strong supply chain and contract management**
- **Established network in China for manufacturing machinery**
  - **Network, engineering skills, quality**

### Short time to market



**Profitable  
business  
partnership**



## Core Competencies

### Technology

- **Senior design engineering and engineering management capabilities**
- **Product lifecycle management**
- **Mechanical, electrical, software, process control design**
- **Utilization of R&D network**
- **Strong link to academic research & in-house material science competence**

### Process and end product knowledge forming the base for equipment design

- **Products -> processes -> resources**
- **Industrial equipment prototyping**

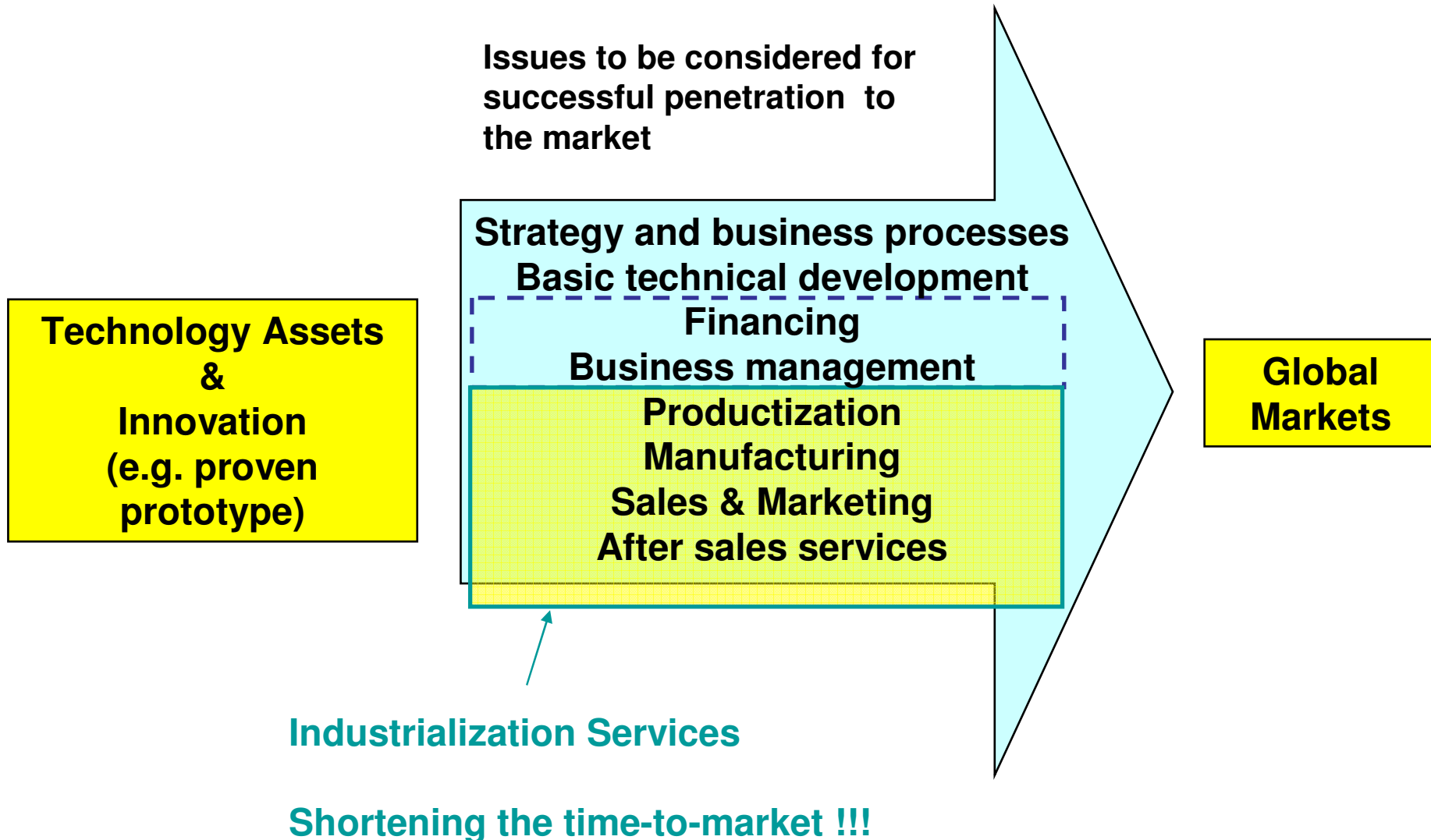
### Global business management

- **Account management**
- **Contract and project management**
- **Sales and agent networks**

### Supply chain management



# Industrialization Service Concept



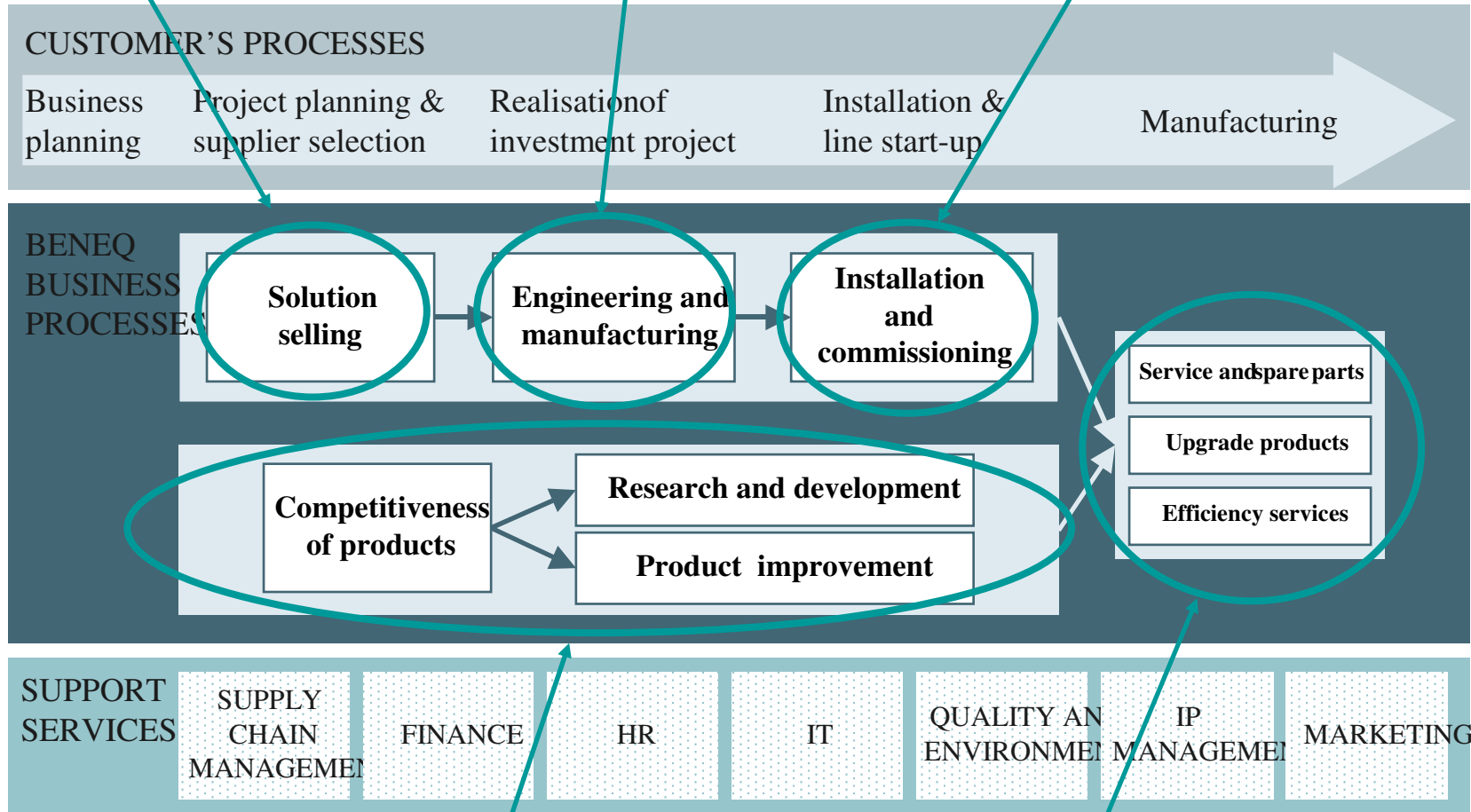


# Business Processes

Global sales and agent network

Engineering & mfg network

Global service network

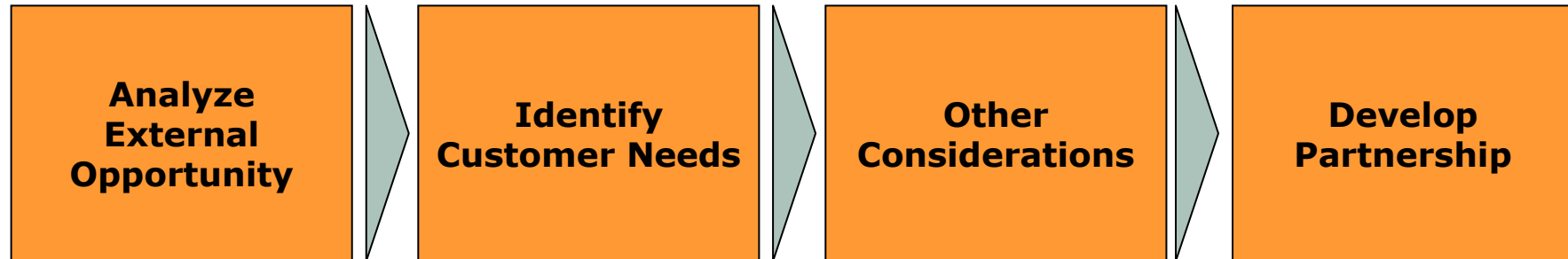


Product management systems & organization

- web service & spare part hubs
- after sales services



## A Four-Step Evaluation Framework to Evaluate New Business Opportunities



### **Is the business opportunity attractive?**

- E.g. market and revenue potential
- Management of partner company, status of technology

### **What are the needs of the partners and are we capable to satisfy these needs?**

- E.g. partner needs engineering, manufacturing and distribution services
- Available capability and capacity

### **What else needs to be considered?**

- Strategic fit?
- Risks

### **What is the best agreement form?**

- Licensing or JV
- Simple service contract or direct equity investment



## Technology Partners

### ABR Innova

- A Finnish company having IP on high-volume nanoparticle deposition systems enabling e.g. functional coatings on tiles (self-cleaning) and glass (coloring).

### Nanolab Systems Ltd.

- Nanolab Systems Ltd is a Finnish company that produces nanoresearch and fabrication devices and accessories for business partners and customers around the world.
- Main focus area is carbon nanotube based applications, modification and growing processes, and devices.

### Nanoscale Oy

- Know-how and expertise in thin film (Atomic Layer Deposition) processes, chemistry and material science
- Main focus in new applications of ALD technology

### ZET Systems Oy

- Know-how in imaging and fully automated, optical quality control system for molded plastic parts, subassemblies and microelectronics.

### Nextrom

- Our partner in providing the business infrastructure





## Example of Partnership ABR Innova

**A partner company in nanotechnology: ABR Innova Oy.**

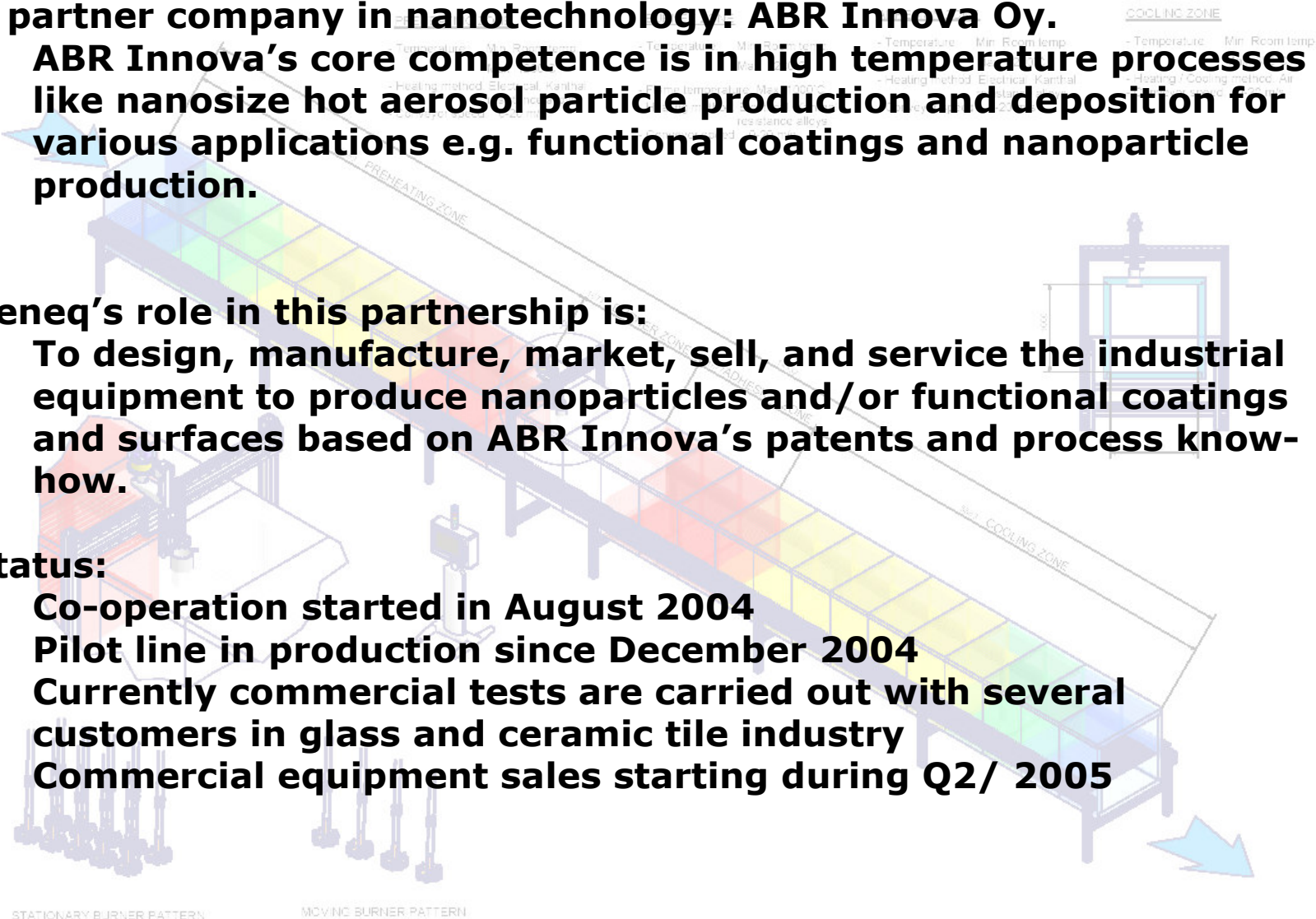
- **ABR Innova's core competence is in high temperature processes like nanosize hot aerosol particle production and deposition for various applications e.g. functional coatings and nanoparticle production.**

**Beneq's role in this partnership is:**

- **To design, manufacture, market, sell, and service the industrial equipment to produce nanoparticles and/or functional coatings and surfaces based on ABR Innova's patents and process know-how.**

**Status:**

- **Co-operation started in August 2004**
- **Pilot line in production since December 2004**
- **Currently commercial tests are carried out with several customers in glass and ceramic tile industry**
- **Commercial equipment sales starting during Q2/ 2005**





## Main Applications and Markets

### **Photocatalytic nanoparticles/-coatings can address multiple markets needs including:**

- Surface coloring of glass during forming procedure (float glass, tableware, perfume bottles, etc...)
- Ceramic tiles with self-cleaning, hydrophilic, and antibacterial characteristics
- Glass surfaces with self-cleaning, hydrophilic (antifogging) properties

### **Glass markets:**

- total float glass manufacturing market size is about 43 b€/year
- 4 companies produce over 60 % of total production ie. 3-6 million tonnes of glass annually

### **Ceramic tile markets:**

- total tile manufacturing market size is about 30 b€/year
- about 10% of top manufacturers produce 35% of total production
- applications for self-cleaning tiles: building facade tiles, (industrial) kitchens, breweries, medical environments, bathrooms, food processing industry, swimming pools, etc...



THANK YOU!