

# The innovative proposition

to attract investors and buyers

## 1. Name of innovation

**RECUPERATIVE GRAIN DRYER**

## 2. Intellectual Property

Select the appropriate position, put the mark «+». Write relevant information.

- Patented Innovation countries: Ukraine
- Filed for a patent countries: \_\_\_\_\_
- License agreement or Exclusive rights. Exclusive rights
- Other (specify) \_\_\_\_\_

## 3. Type of innovation

Select the icon by replacing from "-" to "+"

+	Product
+	Technology

+	Result of R&D
-	Other (discussed separately)

## 4. Areas of innovation

Select one or more applications innovation by replacing from "-" to "+" .

-	Automobiles, transport and logistics
+	Agriculture and food technology
-	Aerial and space technology
-	Biochemical technology
-	Building
-	Military Industrial and Safety
+	Energy and Energy Saving
-	IT-technology, ICT industry and services
-	Light industry
-	Marine industry and services
-	Environment
-	Nano- and Micro Technology
-	New materials
-	Medicine and Health
-	Creative industry
-	Tourism and cultural heritage
-	Other. (Please specify below the scope)

## 5. Novelty

*What does innovation superior (in digits or qualitatively) already existing? (The answer should be clear and concise - three main arguments in support of the use of promising innovations in domestic and/or foreign markets)*

The technical idea of the plant construction is that the address energy delivery to the grain flow is carried out by the two-phase evaporative-condensation system. Evaporators are heated by flue gases (or any other source of energy), and the capacitors transmit the energy to the grain flow. Air acts as a medium only, it takes moisture from the grain. The absence of direct contact between the grain and the flue gases guarantees the production of a safe product. Low air consumption minimizes energy loss with the spent heat carrier, that is the high energy efficiency of the dryer.

The energy of the fuel is transformed into the energy of the combustion products, in the evaporator 1 they are transformed into the energy of water vapor. The latter along the steam line 2 is fed into the condenser 3, which is made in the form of a bundle of tubes. The grain moves along the pipes in which the steam condenses and the condensate through the pipeline 4 returns to the evaporator 1. The design of the condenser promotes efficient mixing of the grain flow.

The energy of evaporation from the grain is used to heat the grain before drying.

The efficiency of the dryer reaches 80 ... 85%

One patent were obtained.

The production of wheat in Ukraine arrives at to 26,5 million ton, that is why grain dryers are claimed for the enterprises of Agroindustrial Complex.

The operating pre-production model of setting is made.

## 6. Stage of Innovation

*What is innovation's stage of development? Select the icon by replacing from "-" to "+"*

-	The concept, proof of concept
+	The prototype, which tested and available for demonstration
-	The technologies for small-scale production
+	The technology is ready for industrial application
-	Commercialized

## 7. The presentation innovations at the Forum

*Select one or more forms by replacing badge from «-» to «+»*

-	The demonstration model
+	Multimedia presentation
-	Report

## 8. Information about the participants, which apply innovation

	<i>If innovation is filed away</i>
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