AgroNum™ – precise, simple & ergonomic

Plot's GPS coordinates, and the desired nitrogen fertilization rate (TUN)

agro

pédo

climatique

« Sustainable » grain nitrogen target yield (RDN)
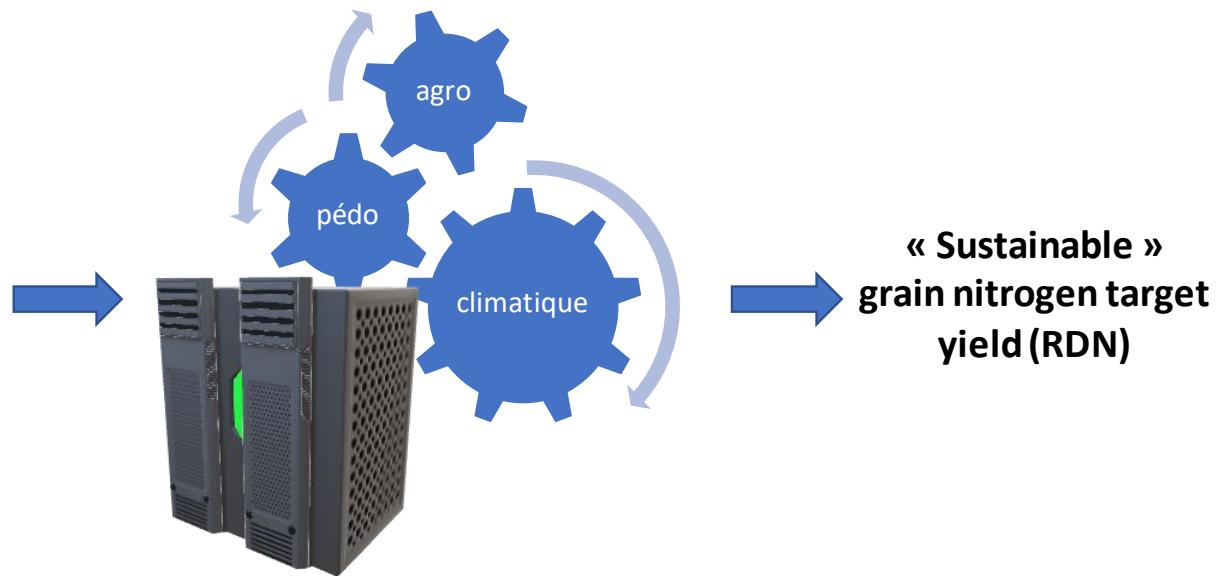
AgroNum is based on an artificial intelligence (AI) core algorithm, and a vast agro-pedoclimatic georeferenced database ;

- ✓ **Applicable to all non-*Fabaceae* field-crops across Europe**
- ✓ **No soil sampling of the plot …**
- ✓ **No drones, sensors, 5G …**
- ✓ **No high-resolution satellite images …**
- ✓ **No shapefiles …**
- ✓ **No details on cropping practices or inputs …**

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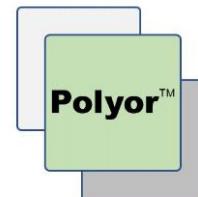
AgroNum™ : one field-plot → one $N_{fertilizer}$ response-curve
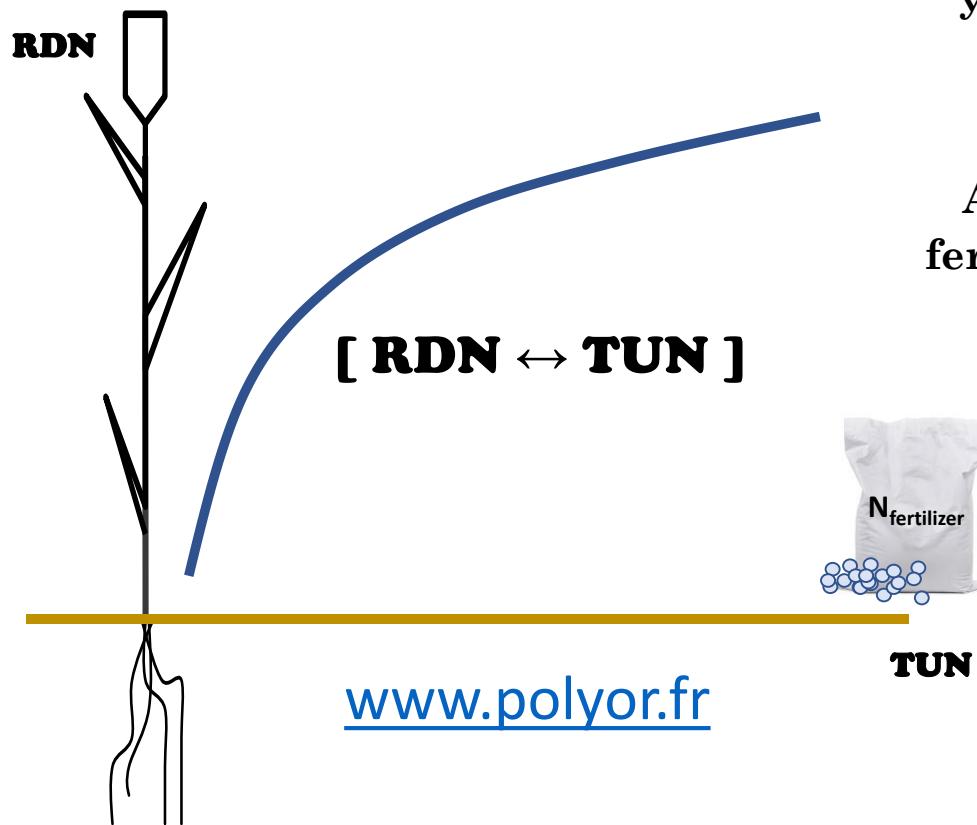
AgroNum pairs targeted RDN N-grain yields (kg-N_g/ha) and TUN nitrogen fertilization (kg-N_f/ha)

AgroNum selects sustainable N_fUE fertilizer use efficiencies (kg-N_g/kg-N_f) neither too high/low

RDN

[RDN ↔ TUN]

$N_{fertilizer}$

TUN

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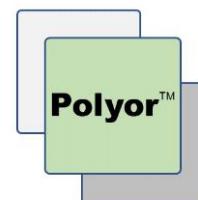
AgroNum™ : refundable nitrogen credits ≡ additionality

modified cropping practice

additionality

sustainability

current cropping practice

When intensifying baseline sustainability, additionality is ensured since only supplemental nitrogen left in the crop residues is *refundable* as a *service to the environment* covering the *nutrient cost* of straw humification into stable SOM.

RDN (kg-N_grain/ha)

TUN (kg-N_fertilizer/ha)

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