



# NUTRIent MANagement and Nutrient Recovery Thematic Network

Hungarian National Task Force  
to identify the status quo and the possibilities in closing the  
C-N-P nutrient loops and reducing the GHG emission  
October 29, 2019 - Budapest, SZIE

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**[www.nutriman.net](http://www.nutriman.net)**



NUTRIMAN has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 818470



## Thematic network compiling knowledge ready for practice

- **Not a research project**, research content = 0%.
- **'Bottom-up' approach** for the interest & benefits of the farmers.
- **Summarising, sharing and presenting existing best practices** and **>TRL7 research findings** to farmers that are near close to being put into practice but not sufficiently known or used by practitioners.
- Important: **added values + cost & benefit aspects.**
- “Multi actor” mix with complementary knowledge (farmers, farmers' groups and advisors).

**NUTRIMAN is a communication, dissemination & networking **support action**, compiling knowledge "ready for practice" – "close to market", that meet:**

- Status= **post research prior commercialization** or early stage of commercialization, not known by practitioners/users.
- **RIA + RTD already completed, validated, scaled up and demonstrated** at least >TRL7 or up, towards market competitive exploitation.
- **Personal data **GDPR** regulated.**

# NUTRIMAN CSA in general II.



- Offered input technology/product evaluated and selected if qualify for high research maturity results above >TRL7 status for NUTRIMAN Farmer Platform.
- **Legal status** of the “**lawful marketing**” (MS Authority permit) as of the EU/MS regulation already scheduled and can be promptly demonstrated for the user.
- **OBJECTIVE: demonstration of N/P Circular Economy & FPR EU1009/2019 in practice under real market competitive conditions already before 2022.**

# NUTRIMAN TRL/IRL targets



Status of RTD progress “RMI” Research Maturity Index		Implementation		Scientific evidence level
		factor %	risk %	
Theoretical THESIS	<b>TRL 1-3 = IDEA</b> = basic principles, concepts	0-1%	100%	Theoretical THESIS
	<b>TRL 4 = technology validated in laboratory</b> <b>Low RMI</b>	<3%	>97 %	
	<b>TRL 5-6 = PILOT</b> technology validated and demonstrated high technical risk/full commercial risk	<25%	>90%	
		<b>RTD risk break-even point</b>		
S&T - RTD maturity progress	<b>TRL 7= PROTOTYPE</b> demo in operational environment <b>IRL 7 = market viable product</b>	60-75%	40-70%	Demo
	<b>TRL8 = FIELD DEMO</b> system qualified <b>IRL 8 = validate value delivery</b> <b>High RMI</b>	75-90%	15-25%	Ind. validate
	<b>TRL 9 = PROVEN</b> in operational environment, full scale industrial replication model for commercial deployment <b>IRL 9 = identify and validate metrics</b>	95-99%	1-5%	Market validate
	Repeatable and scalable business model			
<b>Market competitive commercialized innovation</b>		97-99%	1-5%	Replicate

- ✓ **TRL** EU Commission C(2014)4995 and US official methods since 1980's (NASA, DoD).
- ✓ **IRL** OECD (The Organisation for Economic Co-operation and Development) evidence based demonstration to investors, that there's a repeatable and scalable business model.

# NUTRIMAN targets:

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- **>100 >TRL7 PRACTICES on web FARMER PLATFORM**
- **25 practice abstracts on natural languages,**
- **8 multi lingual (EN, FR, NL, DE, IT, ES, PL, HU) practice abstracts in EIP AGRI format**
- **8 multi lingual practice abstracts on pendrive (8000)**
- **100 audio-visual materials,**
- **100 info sheets & infographics & extensive training/educational materials.**
- **Multi lingual practice oriented master web site.**

**Total number of farmers to be directly reached in 8 languages (EN, FR, DE, NL, IT, ES, PL, HU):>1,500,000.**

# NUTRIMAN IMPACTS



- ✓ Contribute to the **collection and distribution** of easily accessible **practice-oriented knowledge on the nutrient management and recovery thematic.**
- ✓ **Conserve the practical** knowledge for 10 years long term beyond the project - **2031.**
- ✓ **Increase the flow of practical information between farmers** in Europe.
- ✓ **Achieve greater user acceptance** of collected solutions and a more intensive dissemination of existing knowledge.



# Nutrient Management and Nutrient Recovery Thematic Network

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**@NUTRIMANnetwork & FARMER PLATFORM**



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