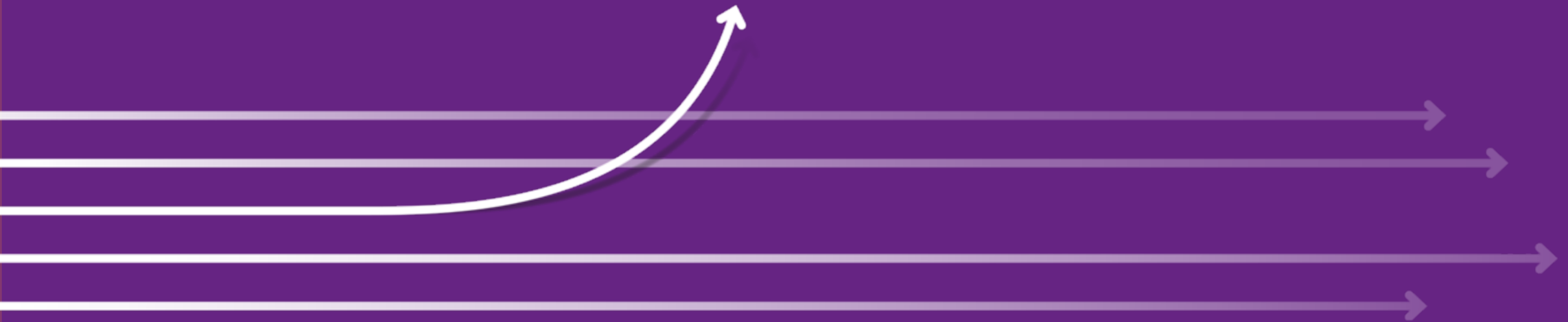


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Applied Artificial Intelligence Unit ●



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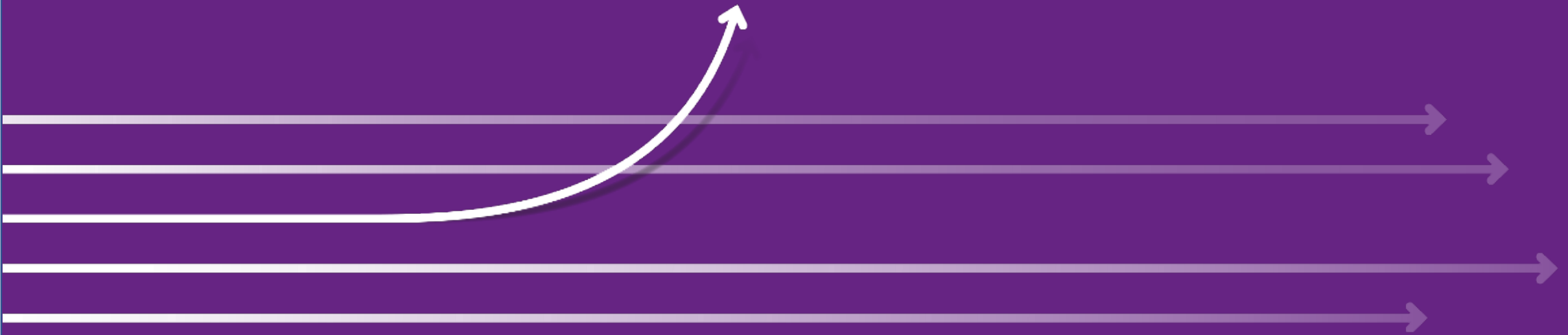
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*“innovating for business”*

# FIWARE4Water



Solucions digitals per a la gestió avançada de l'aigua en les futures ciutats intel·ligents



### 14 PARTNERS

Experts in ICT, water and social sciences, coordinated by the International Office for Water

### OUTCOMES

- Smart applications for raw water supply
- Smart applications for water supply
- Smart applications for water treatment
- Smart applications customers

### FUNDING AND COORDINATION

Fiware4Water is a 3 years project (2019-2022) funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No. 821036 coordinated by the International Office for Water

### 4 DEMO CASES

- Athens Water supply and sewerage (GR)
- Cannes Improving the water supply system (FR)
- Amsterdam Wastewater treatment (NL)
- Great Torrington Smart metering (UK)

### 3 DEMO NETWORKS

- Municipalities
- Water authorities
- Technology providers



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 821036



## TO ADDRESS

Increasing the maturity of the water sector on the integration and standardisation of ICT solutions



## FOR

Water sector end-users (cities, water utilities and authorities, citizens and consumers) and solution provider (private utilities, SMEs, developers)



## TO BENEFIT FROM

The innovative solutions that will be available through Fiware4Water Ecosystem, open and license free smart platform

HARVESTING  
THE POWER OF FIWARE



### Interoperability

Boosting interoperability, standardisation and cybersecure cross-domain data exchange – seamlessly integrated with legacy systems.



### Smart Apps & Devices

Leveraging distributed intelligence and low-level analytics: smart meters, advanced water quality sensors, AI, interactive interfaces.



### Innovator Ecosystem

Linking water through FIWARE to the Smart City Ecosystem of more than 1.000 FIWARE innovators and high tech SMEs across domains.



### F4W Digital Market

Kick-starting the F4W ecosystem, by organising competitive challenges, demonstrating its technical, social and global business potential.

### Stakeholder-inclusive

Bringing together water sector end-users (cities, utilities, authorities); solution providers (SMEs, developers); citizens and consumers.



### Whole water cycle

Four Demo Cases for water resource (GR), distribution (FR), treatment (NL), customers (UK) with a total population of 8.5 Million inhabitants.



### Global Outreach

Engaging three EU and global networks of cities, water authorities, citizens, SMEs, developers to demonstrate and engage.



### Strong Partnership

Building on a team of 4 high tech SMEs, 4 advanced utilities and 7 applied Research CoExcellence incl. the FIWARE Foundation.



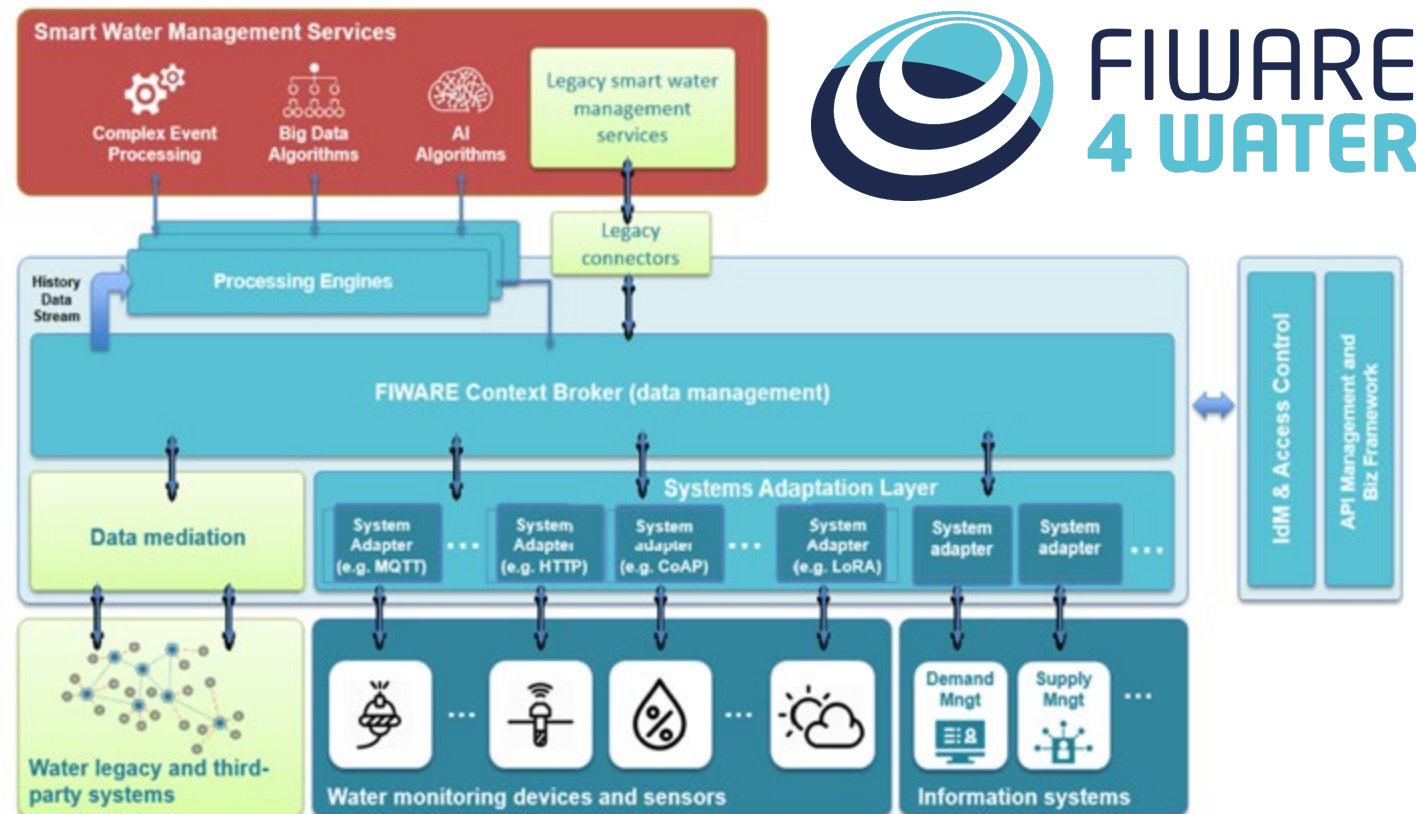
ACROSS THE WHOLE  
WATER VALUE CHAIN



**FIWARE4WATER:** Interoperability, Smart Apps & Devices, Innovator Ecosystem, F4W Digital Market, Stakeholder-inclusive, Whole water cycle, Global Outreach, Strong Partnership

FIWARE is a smart solution platform, funded by the EC (2011-16) as a major flagship PPP, to support SMEs and developers in creating the next generation of internet services, as the main ecosystem for Smart City initiatives for cross-domain data exchange/cooperation and for the NGI initiative.

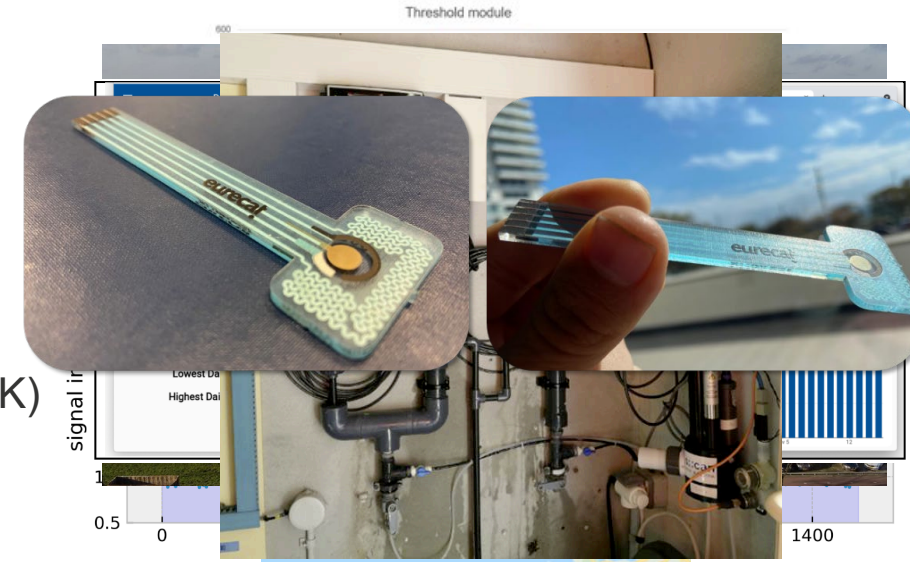
Fiware4Water intends to link the water sector to FIWARE by demonstrating its capabilities and the potential of its interoperable and standardised interfaces for both water sector end-users (cities, water utilities, water authorities, citizens and consumers), and solution providers (private utilities, SMEs, developers).





Development of the FIWARE-enabled Smart Applications and Smart Devices to support the water infrastructure towards a better digital and intelligent management

- Demo Case #1: Raw water supply optimization in Athens (GR)
- Demo Case #2: Water distribution system management in Cannes (FR)
- Demo Case #3: Intelligent control of WWT in Amsterdam (NL)
- Demo Case #4: Smart metering & citizen engagement in Great Torrington (UK)



Main results:

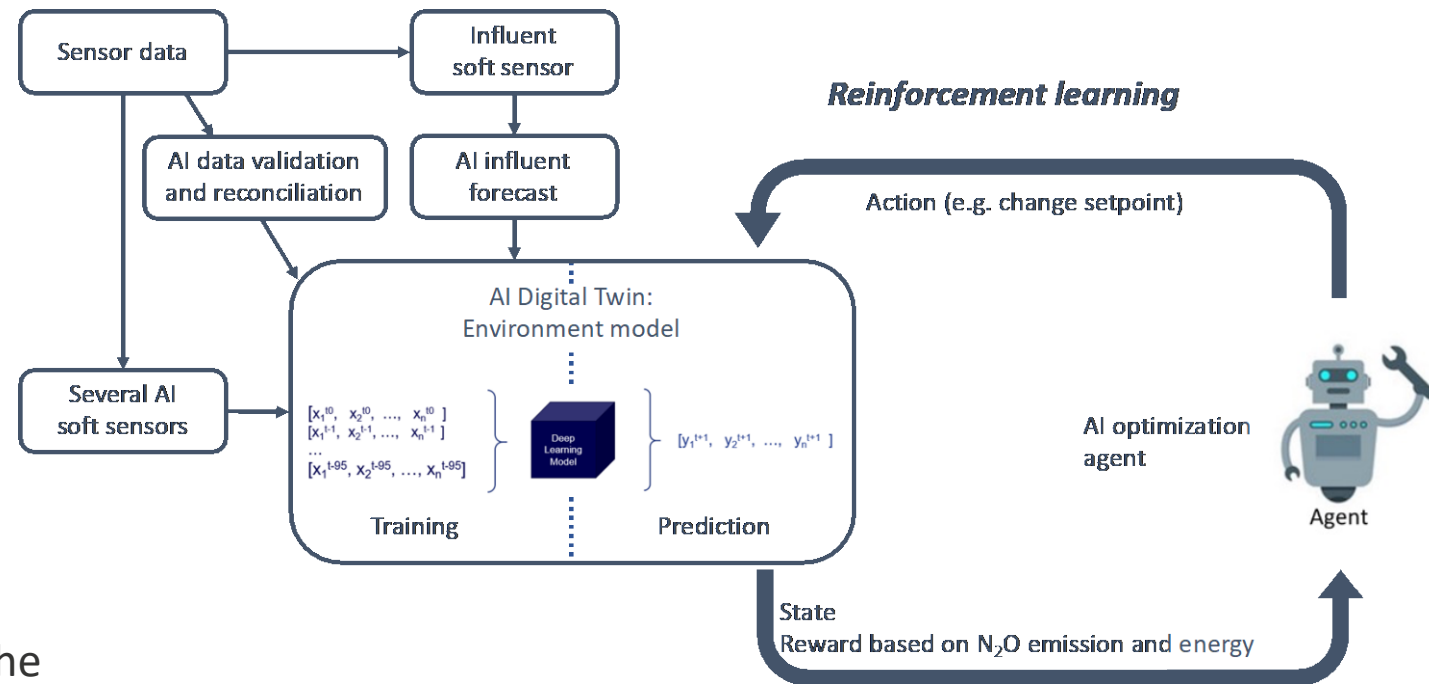
- More than 25 scientific models based on different mechanisms, technologies and approaches have been developed, tested and demonstrated
- Integration of several IoT water devices
- New water quality monitoring devices have been tested
- Several FIWARE-enabled digital solutions have been developed



## Demo Case #3: Intelligent control of WWT in Amsterdam (NL)

Optimize wastewater treatment operations and plant performance with the goal of reducing greenhouse gas emissions and energy use.

- I. Data validation, detection and reconciliation framework
- II. Soft sensors.
- III. Digital Twin.
- IV. Control Agents.



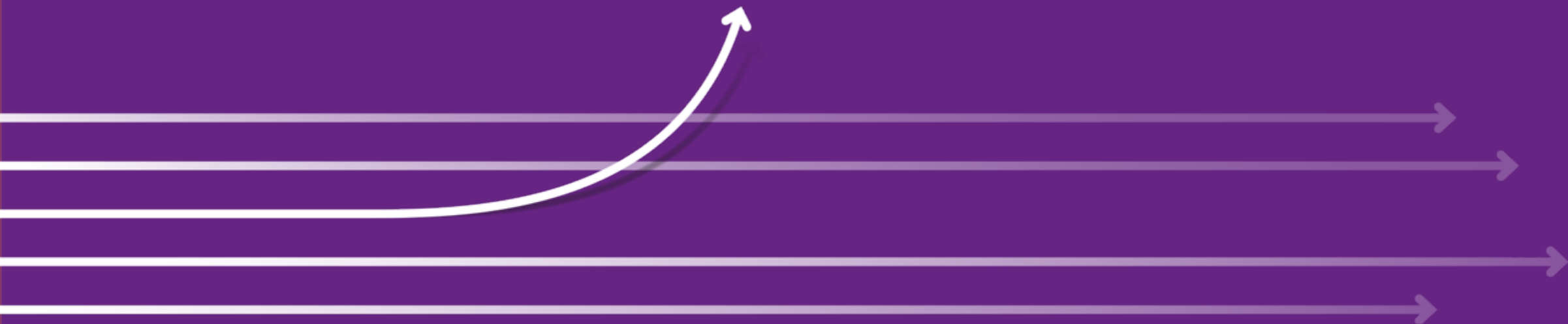
Currently, **AI agents** are **autonomously operating** the WWTP resulting in a **better global performance!!**



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# Thank you!



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