SPACEMIND
a brand of NPC

COMPANY PROFILE

NPC
new production concept

www.npcspacemind.com

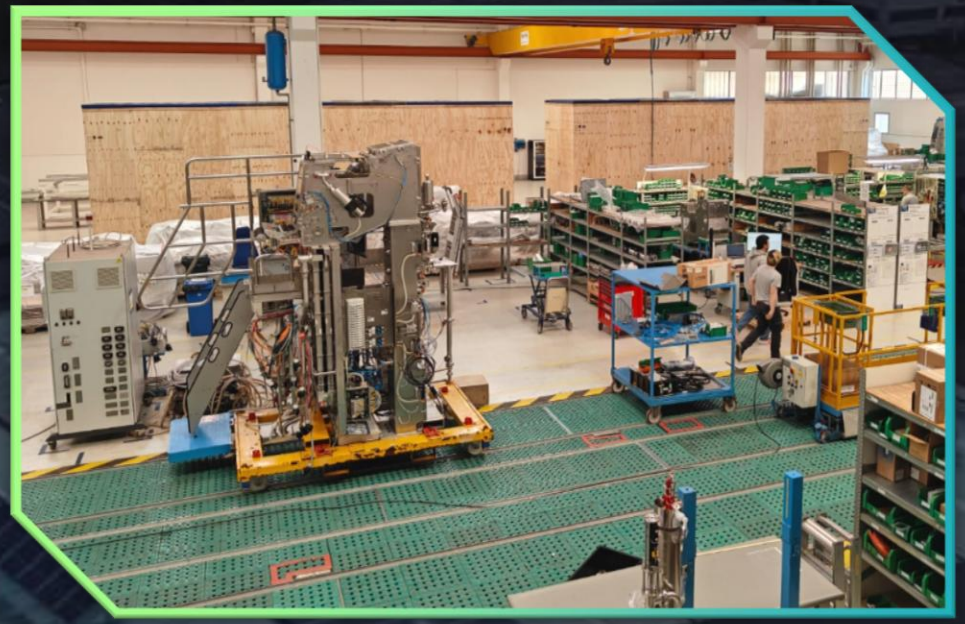
CORPORATE GROUP

N.P.C. New Production Concept S.r.l. is an Italian company based in Imola (BO), founded in 2002 by its president, **Nabore Benini**, **CURTI Spa** and **ECOR Spa.**

NPC is a leader in the integration and assembly of electro-mechanical products.

N.P.C. can count on 75 employees and reported a 2024 Turnover of €32,5 million.

7,000 + 1,000 + 1,000 sqm of space for design, assembly, testing and warehousing.
The production process has always been characterized from the beginning by a strong focus on the quality management system, which today has led to the certification **ISO 9001:2015** and **ISO 14100**.



FACILITIES

Headquarter: Imola

7000 sqm plant area, subdivided as below:

- **650** sqm design and development area
- **5350** sqm assembly and testing area
- **800** sqm warehouse area
- **200** sqm quality control area (45 sqm in controlled temperature and humidity conditions)

Space Facility: Faenza

More than **1000 sqm** dedicated to **SPACE** activities

- **500** sqm design and development area
- **100** sqm assembly and testing ISO 8 clean room
- **200** sqm laboratories
- **200** sqm warehouse area

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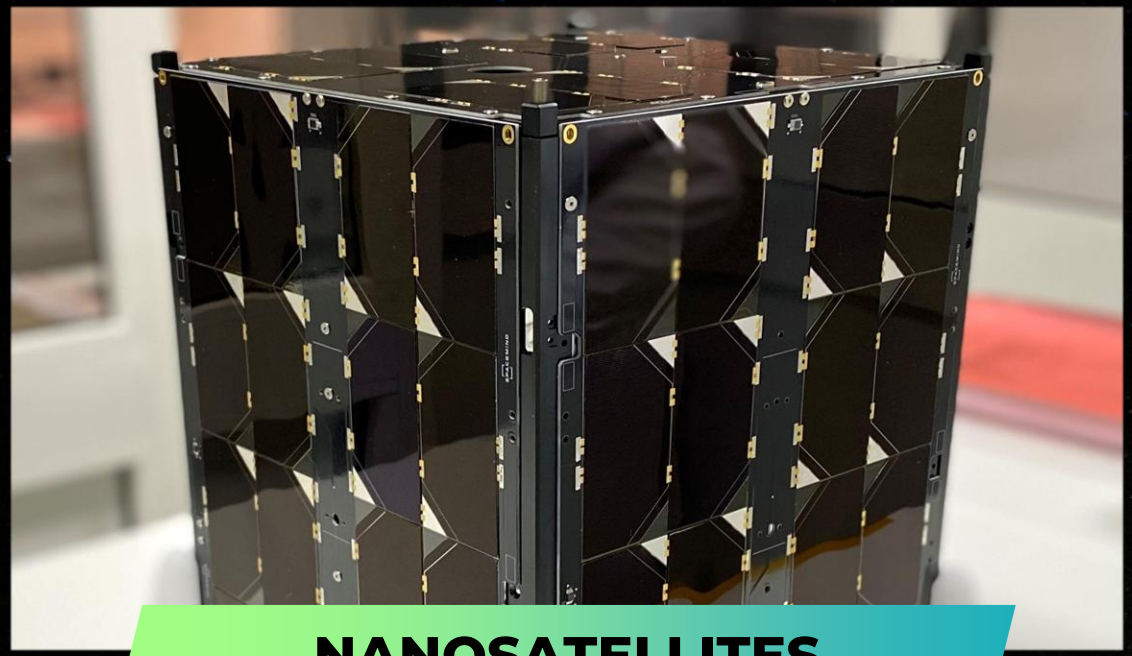
Since 2013 through the **SPACEMIND** business unit, the company has been engaged in research and development activities aimed at the commercialization of integrated solutions in the Space sector for civil and defense applications.

SPACEMIND now provides cutting-edge solutions combining innovation with precision engineering.

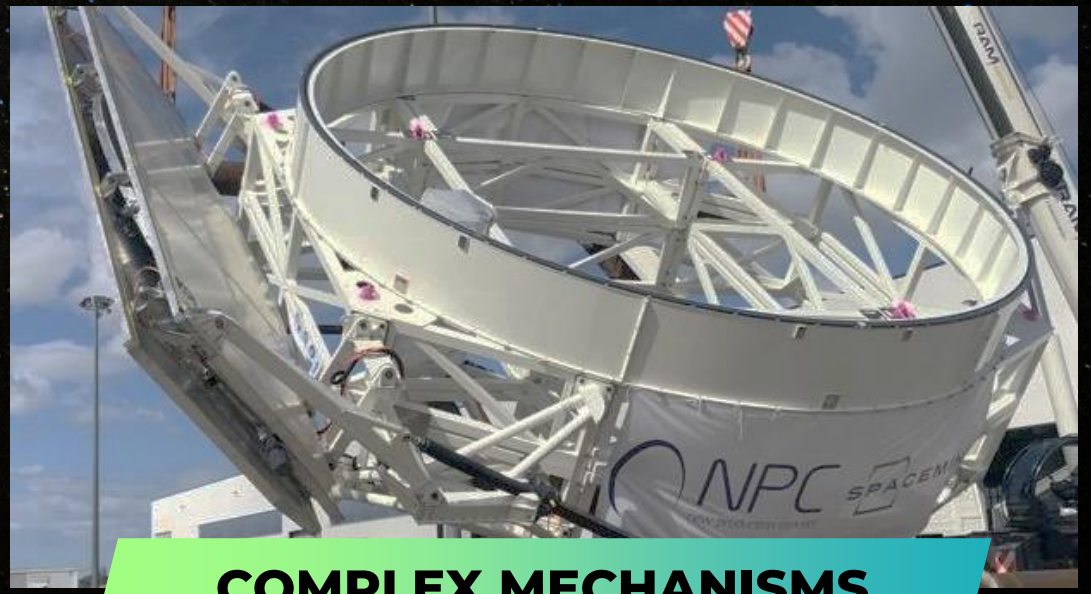
- **End-to-end mission management**: covering everything from defining requirements to conducting on-orbit operations, all tailored to our clients' needs.
- Fully equipped **nanosatellite platforms** up to 16U, customized for specific payloads.
- Advanced **separation systems** for CubeSats
- **ARTICA** deorbiting drag sail, an effective response to the problem of space debris
- A wide range of **nanosatellite hardware**, with subsystems honed through various mission experiences.
- Rapid and precise ground **tracking solutions** for SSA and SST applications and on-orbit object tracking services.
- Assembly and testing of **complex mechanisms** for large structures.
- Design and production of **MGSE** of various sizes for the maintenance and operations of flying components.



NANOSATELLITES

SEPARATION SYSTEMS

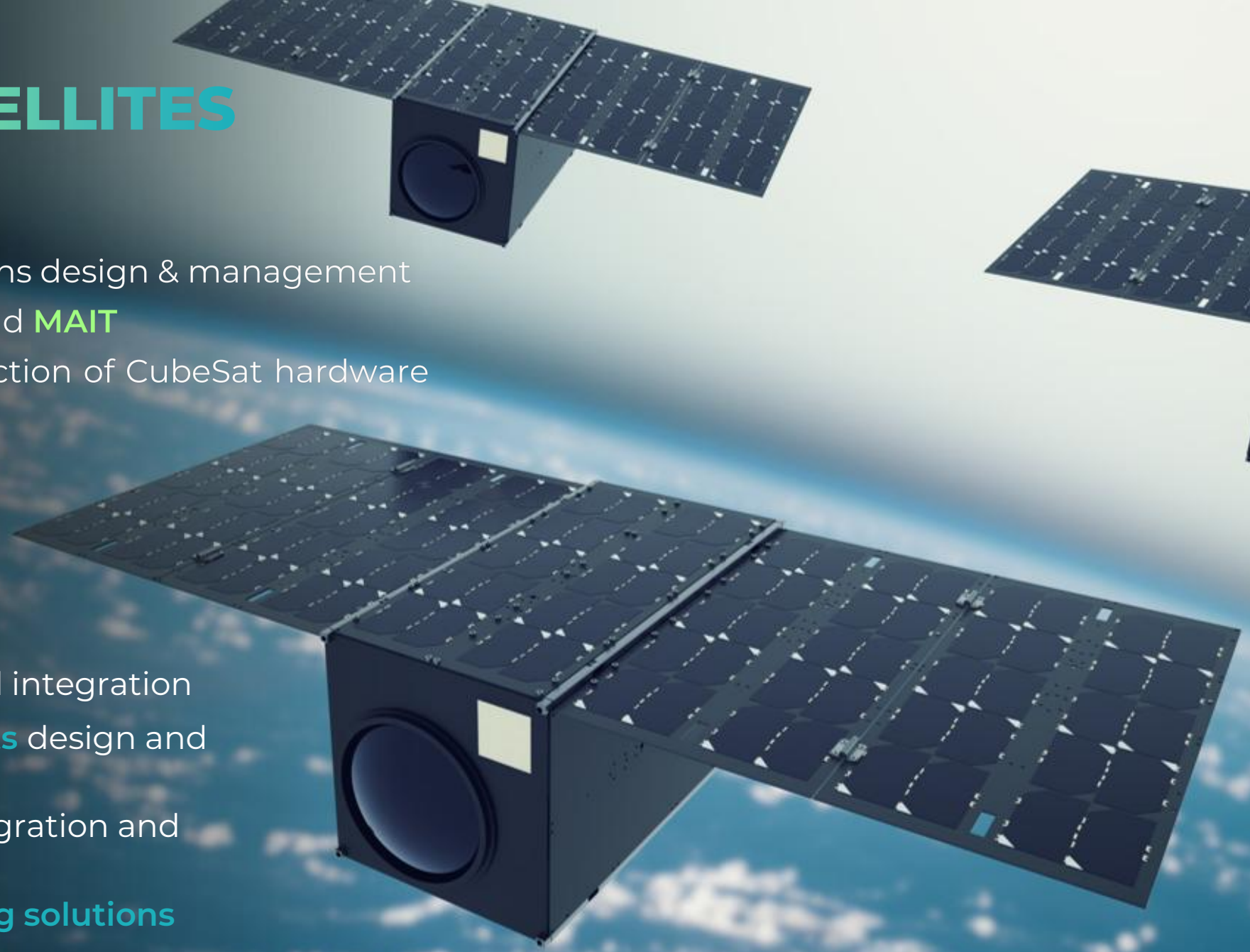
TRACKING SYSTEM



COMPLEX MECHANISMS

NANOSATELLITES

- **End-to-end** missions design & management
- Platform design and **MAIT**
- Design and production of CubeSat hardware and subsystems



SERVICES

- System and payload integration
- **Environmental Tests** design and execution
- Launch vehicle integration and support
- Custom **engineering solutions**

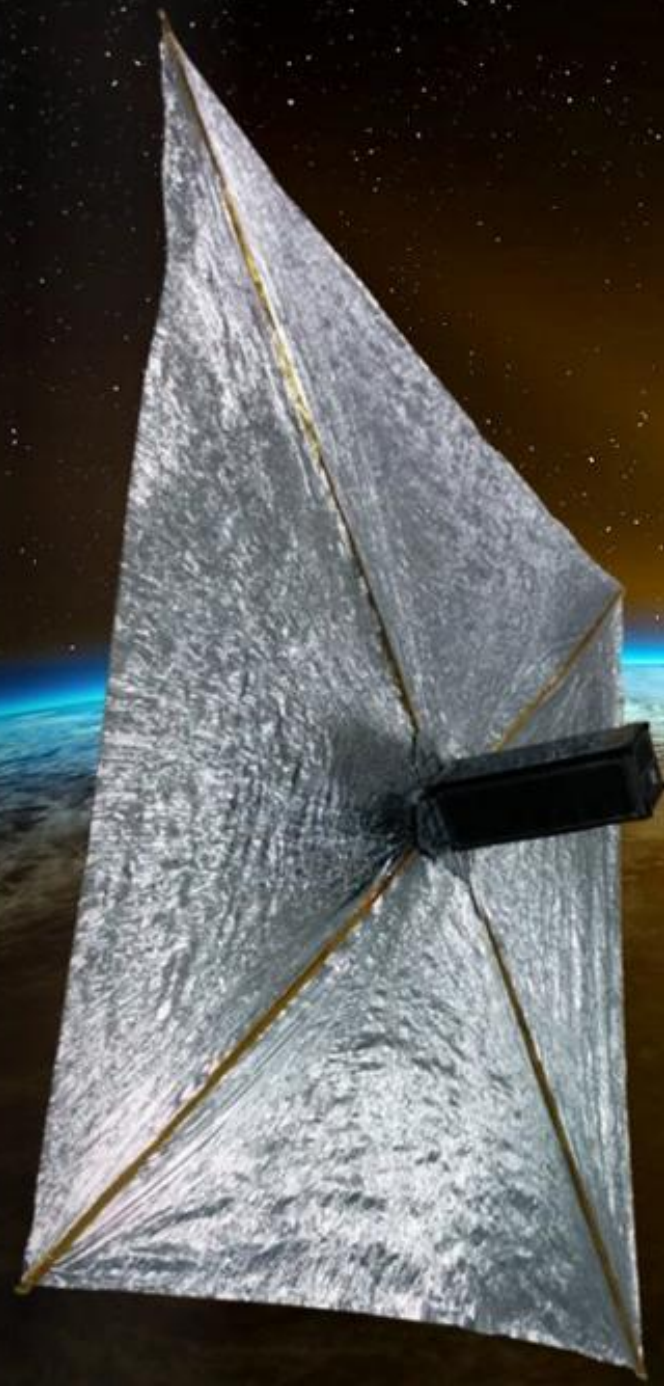
SPACE DEBRIS MITIGATION

ARTICA is a compact deorbiting device based on the deployment of an aerobrake sail (2 sqm).

The system is able to accelerate the decay of the orbit and safe destruction in Earth atmosphere of the satellite at the end of the mission, as an effective response to the problem of **space debris.**

- Customizable interfaces;
- **Plug&play;**
- Possible Complete **autonomy**;
- **PC104** compatible;
- Sail surface up to **2,1 m^2**;
- Compact size **<0,3 U**;
- Low mass **< 280 gr**;
- High reliability
- Ease of integration;
- Scalable performances;

✓ **SPACE HERITAGE 07/2022**



CUBESAT DEPLOYERS

- **SMPOD** is a family of CubeSat deployers.
- It exploits non-explosive actuators (NEA) in a redundant configuration to trigger the opening of a door;
- **SMPOD** exploits a dynamic rail to clamp the satellite during launch, avoiding rattling;
- **3U, 16U** dimensions in XL and standard configuration

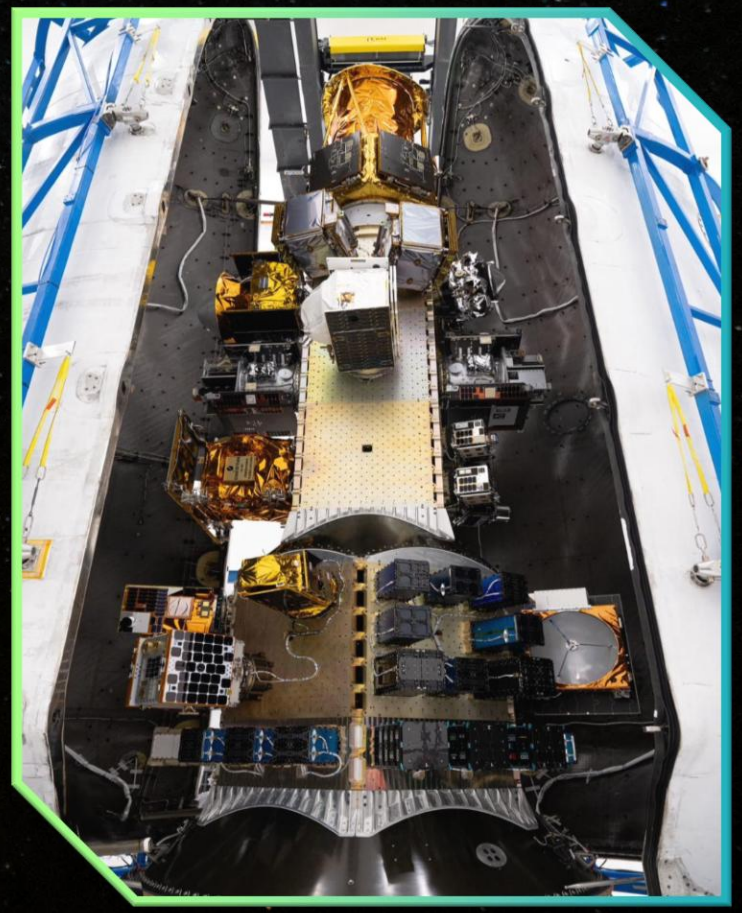
- Internal rail dimensions: 227x100,7mm (6U Conf.)
- 16U to 12U adapters
- Horizontal payloads integration

- Lateral Protrusion: up to **48mm**
- Top Protrusion: up to **5.5mm**
- Accessibility: Top and Lateral access
- Maximum payload weight: **up to 36 Kg**

OUR LATEST MISSION

On January 14th 2025 , two of our **SMPOD16 Caspian** successfully completed their debut aboard the Falcon 9 SpaceX Transporter-12 mission, releasing four telecommunication satellites after two hours from the launch!

Photo credits by SpaceX



HIGH PERFORMANCE TRACKING SOLUTION

MORAL is a family of ALT-AZ high performance telescope mounts designed for SSA applications requiring accuracy, precision and high slew rate for pointing and tracking of objects in orbit.

APPLICATIONS

- Astronomy
- SSA - SST
- Optical communication
- Electro-Optical Tracking

PERFORMANCE

- Pointing Accuracy: **1 Arcsec**
- Max Slew Rate: **80 deg/s**
- Max acceleration: **> 100 dg/s2**;
- Axes Motion: Synchronous @ 1ms
- Telescope aperture: **0,400 – 1,2 m**
- Max Payload mass: up to 500 Kg

COMPLEX MECHANISMS

Our costumer is developing the **cover system** for seven of the world's largest mirrors (**8.4 meters** in diameter) of the Giant Magellan Telescope (GMT), the **high-performance optical-infrared telescope** currently under construction, with operations starting in 2029.

The telescope is composed of **seven primary mirrors, 8.4 meters** in diameter, to form an effective aperture of 25.4 meters that will be able to explore new frontiers in nearly all areas of astronomy.

Co-design, industrialization and AIT of the seven **reflector covers** including the design, manufacturing and test of all the **MGSE.**

OUR NETWORK

Agenzia Spaziale Italiana

European Space Agency

SAPIENZA
UNIVERSITÀ DI ROMA

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

Politecnico di Bari

TOR VERGATA
UNIVERSITÀ DEGLI STUDI DI ROMA

MEMBER OF

ITALIAN INDUSTRIES FEDERATION FOR AEROSPACE, DEFENCE AND SECURITY

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THANK YOU!

WHERE YOUR MISSION COMES TO LIFE

OUR CONTACTS

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