



# TaRDIS

Trustworthy and Resilient  
Decentralised Intelligence  
For Edge Systems



# TaRDIS

**João Leitão**

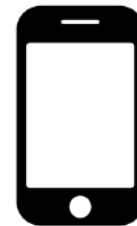
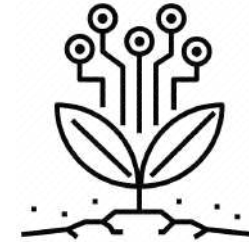
*NOVA School of Science and Technology  
Computer Science Department*

**EBDVF 2023**

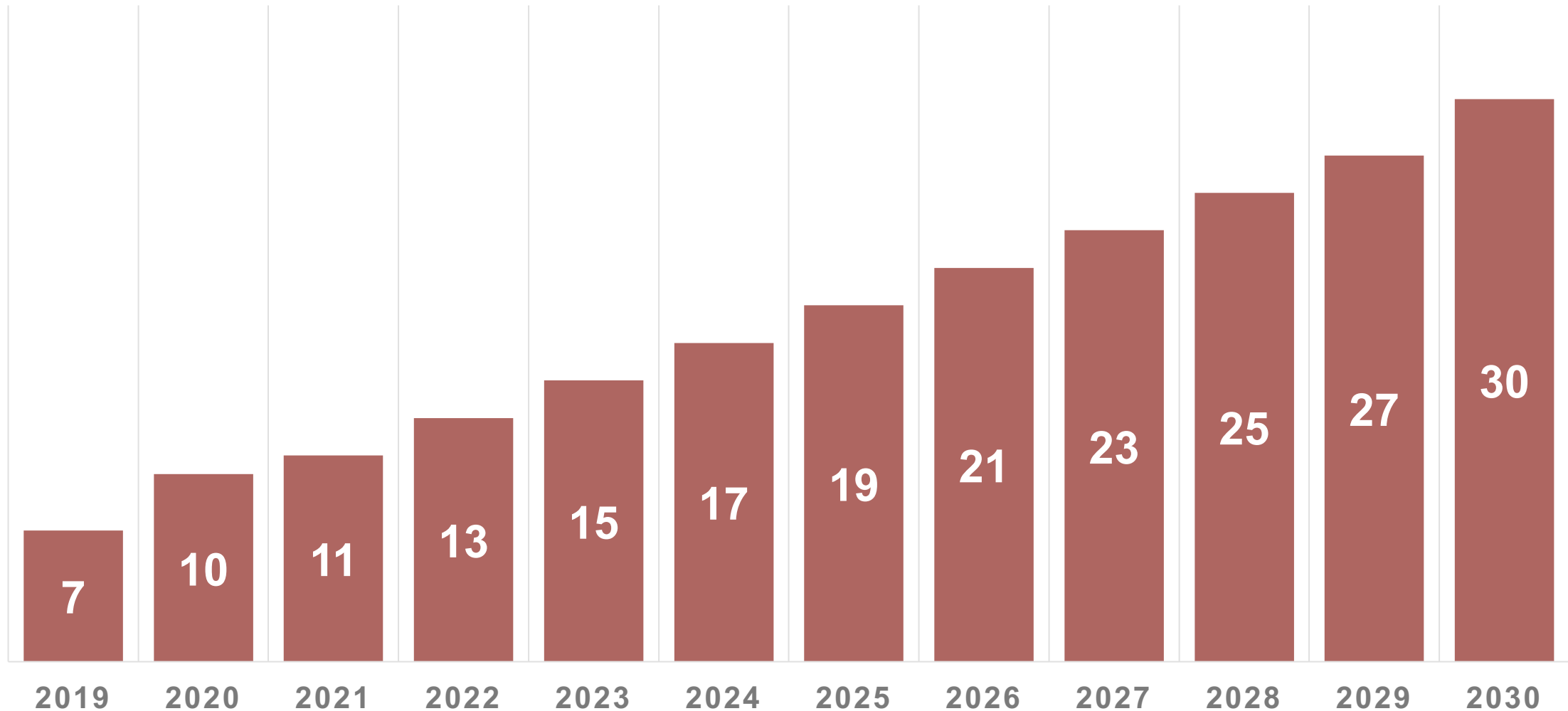
*Valencia, Spain, 25/10/2023*



There are an increasing number of connected devices (e.g., IoT).

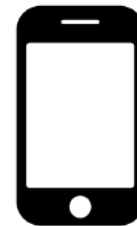


# Number of IoT Devices connected to Internet (mM)





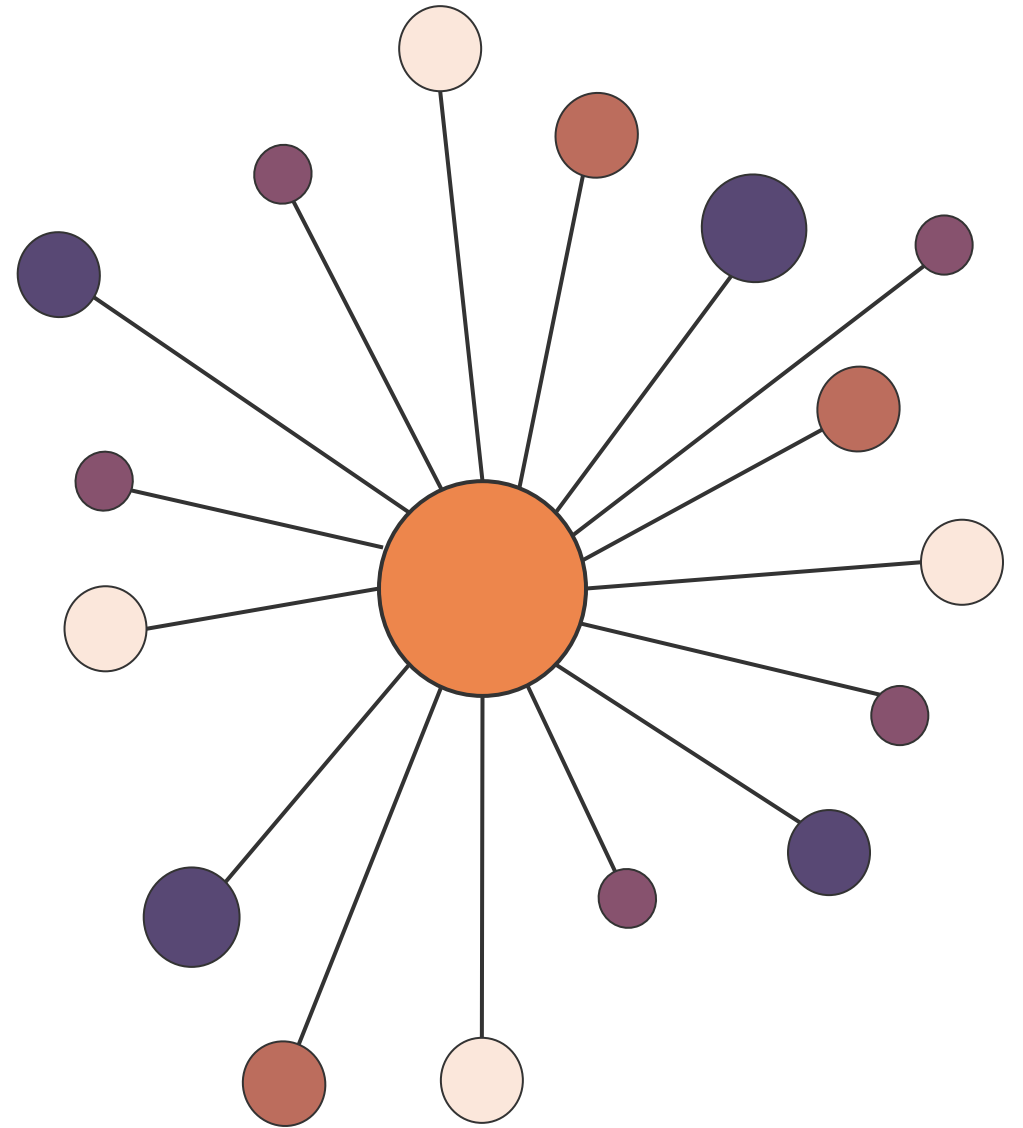
Devices have varied  
amounts of:  
computational power  
storage capability





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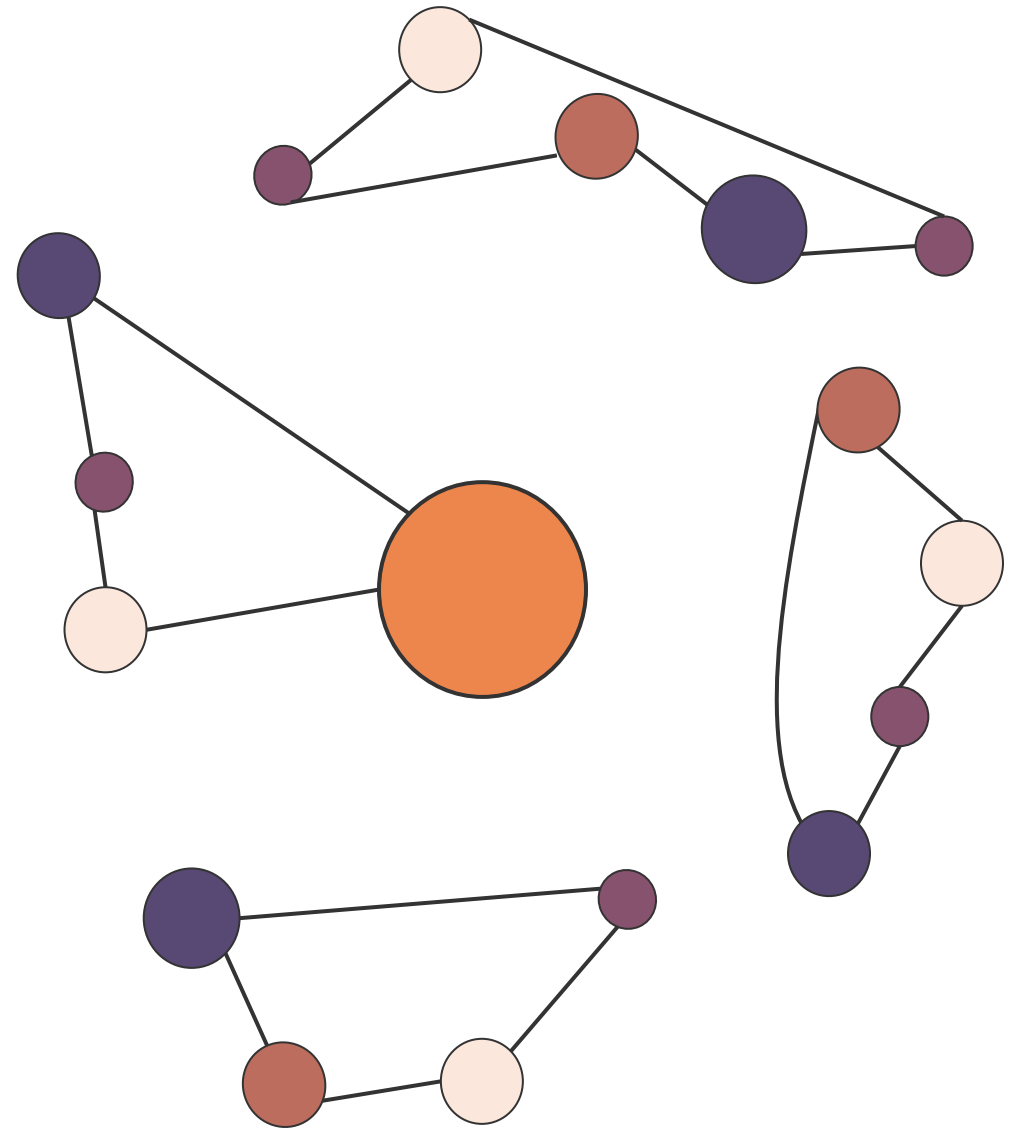
**Applications still have  
their logic (and any form  
of intelligent decision  
/management)  
centralized.**





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We should be striving  
for decentralized  
intelligent  
decision/management





**What is TaRDIS  
trying to achieve  
in this context?**





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To simplify the task of design, Implement, manage, and operate large-scale decentralized and heterogenous systems.



TaRDIS

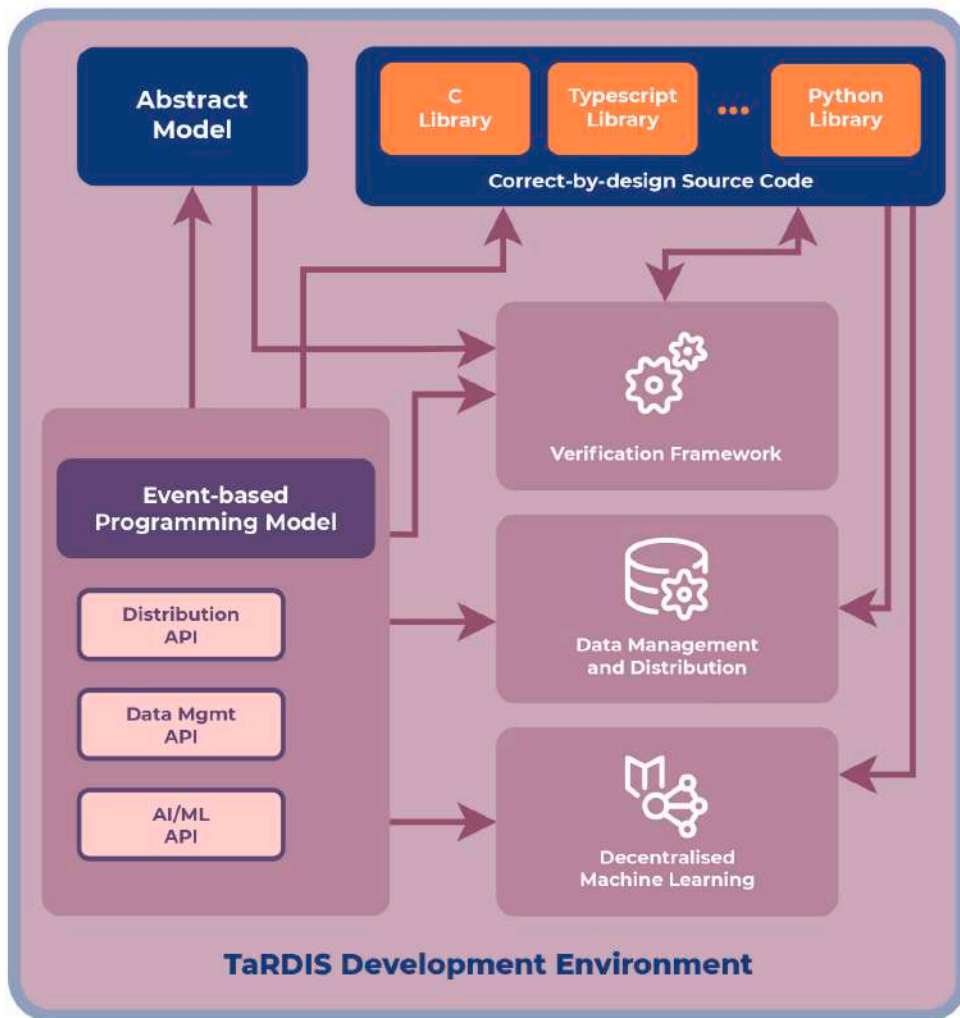
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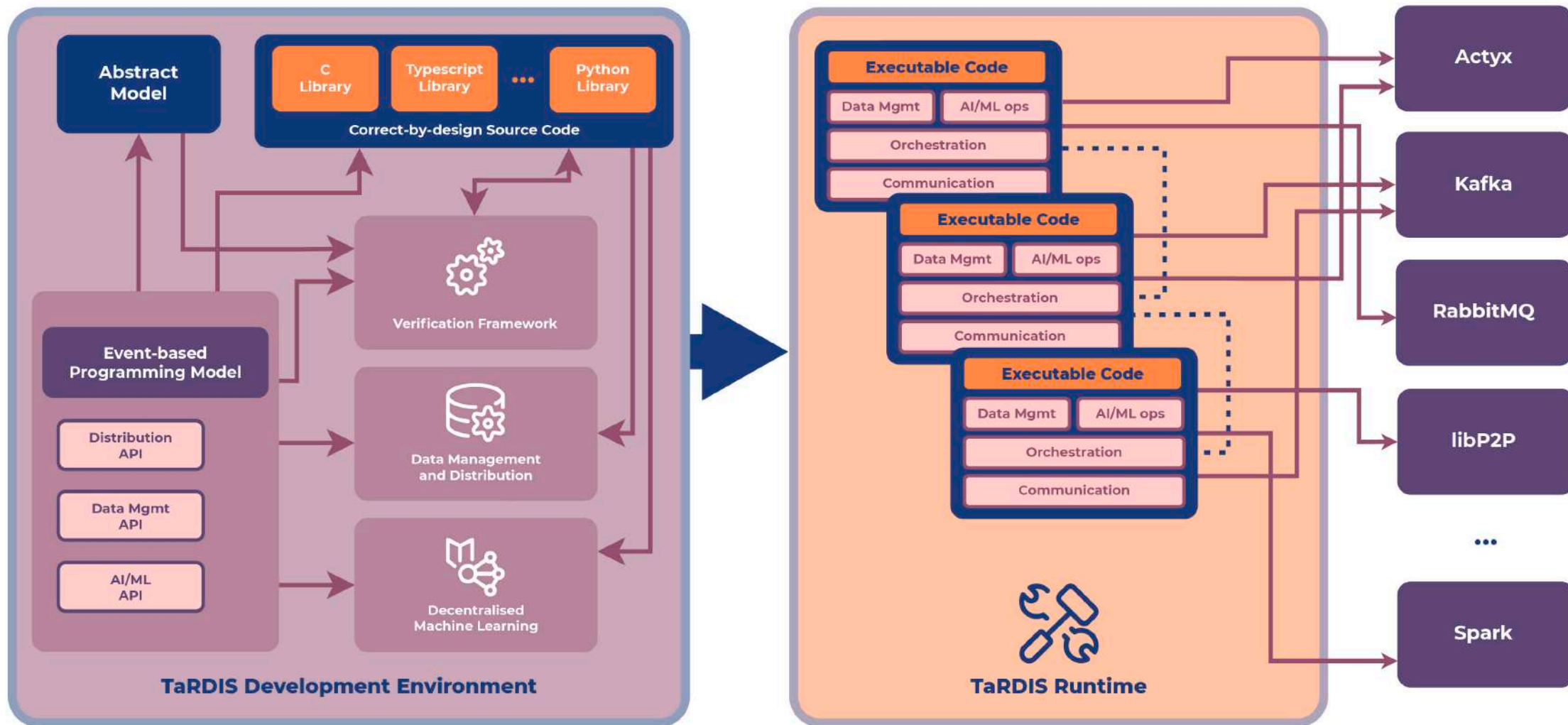
## **Ensuring**

- **Resilience**
- **Privacy**
- **Correction**

# TaRDIS toolbox



# TaRDIS toolbox

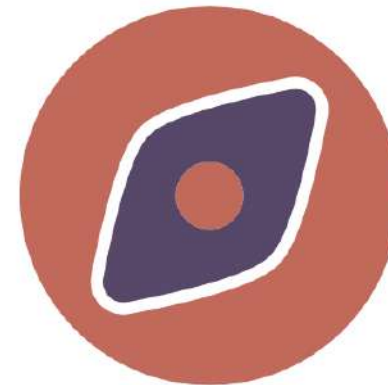




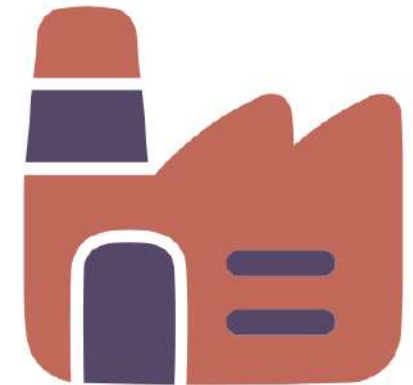
**Renewable  
Energy  
Communities**



**Smart  
buildings/spaces**

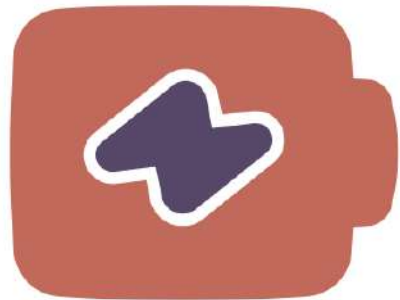


**Satellite  
constellations**

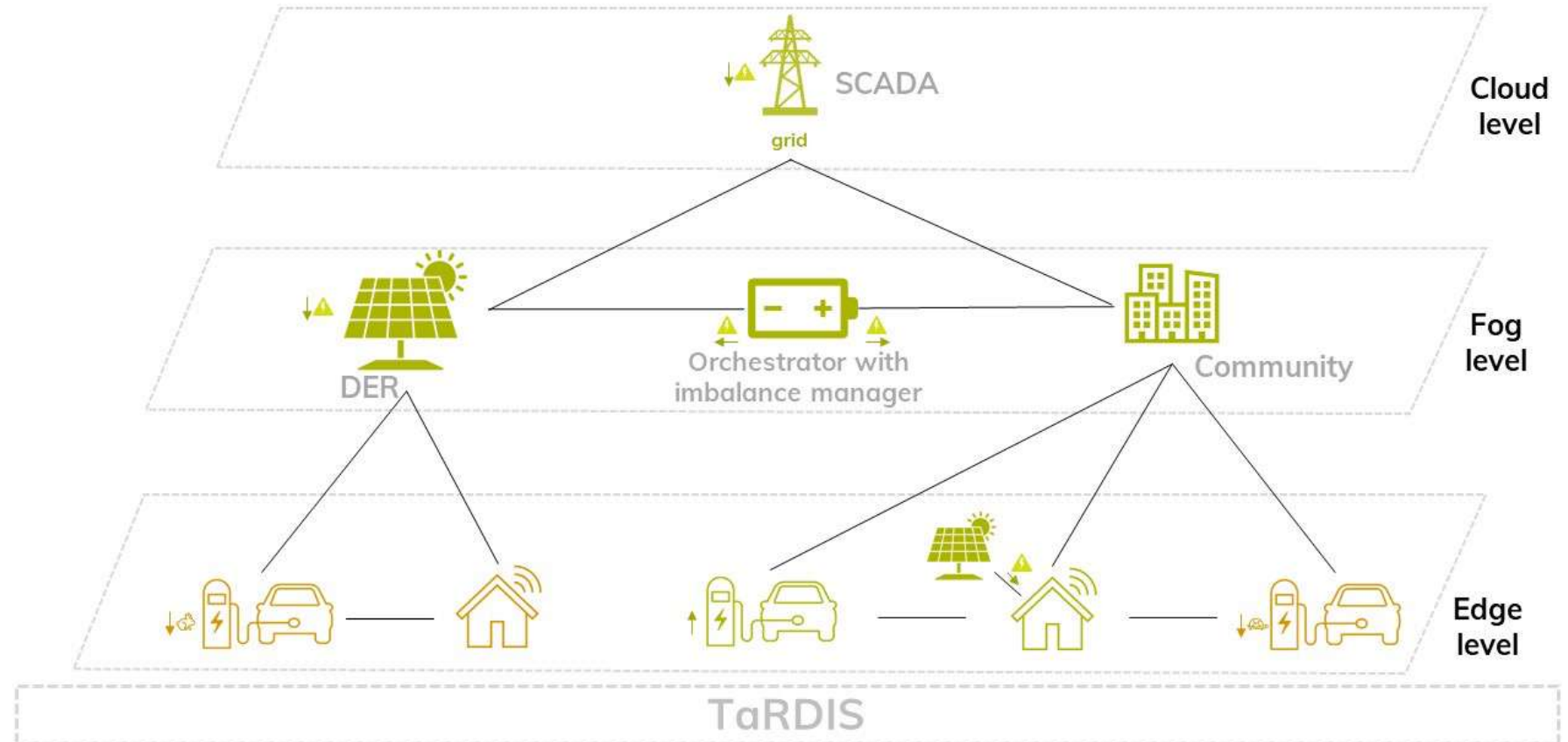


**Smart  
factories**

# Industrial Use Cases



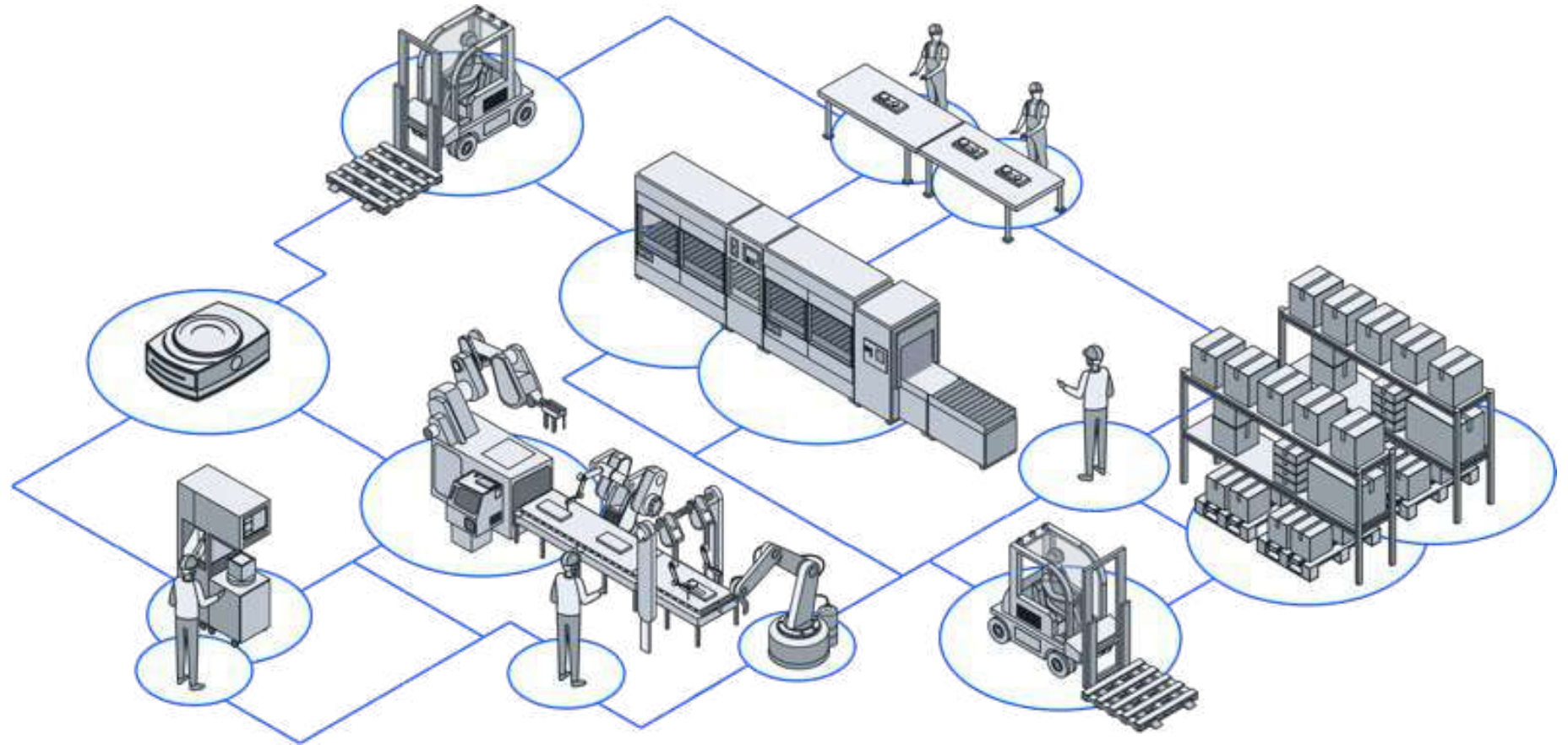
## Renewable Energy Communities



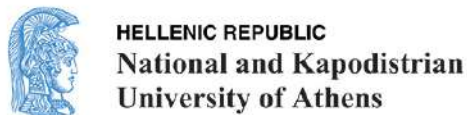
# Industrial Use Cases



**Smart  
factories**



# Consortium – PT, DK, UK, RS, EL, DE, CH



7.1M€





# TaRDIS



<https://project-tardis.eu>  
<https://joaaleitao.org>



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@jcaleitao



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# Thanks

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