



UBORA: THE E-INFRASTRUCTURE FOR CO-DESIGNING OPEN SOURCE MEDICAL DEVICES

Carmelo De Maria, Licia Di Pietro, Gabriele Maria Fortunato,
Alice Ravizza, Arti Ahluwalia



UNIVERSITÀ DI PISA

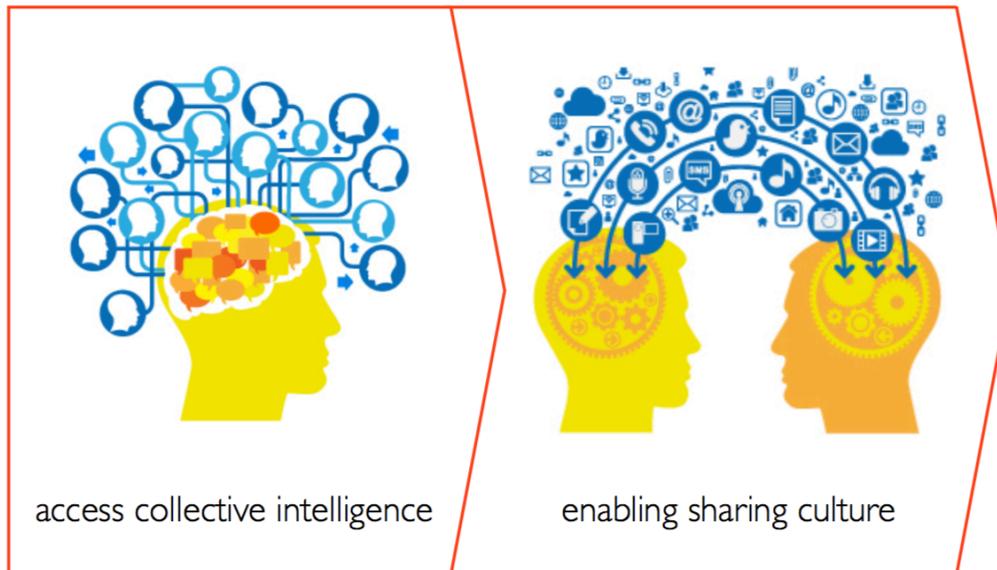
WHAT IS “OPEN SOURCE”



Open Source 3D Printing

- Sharing of “blueprints”
- Sharing of open data on device statistics
- Sharing of design errors or dead ends
- Needs based design

SAFETY AND INNOVATION BY OPEN AND COLLABORATIVE DESIGN



The open source approach results into:

- accessibility,
- sustainability,
- improved performance,
- reliability
- and safety

because everyone can review the design dossier

THE UBORA APPROACH



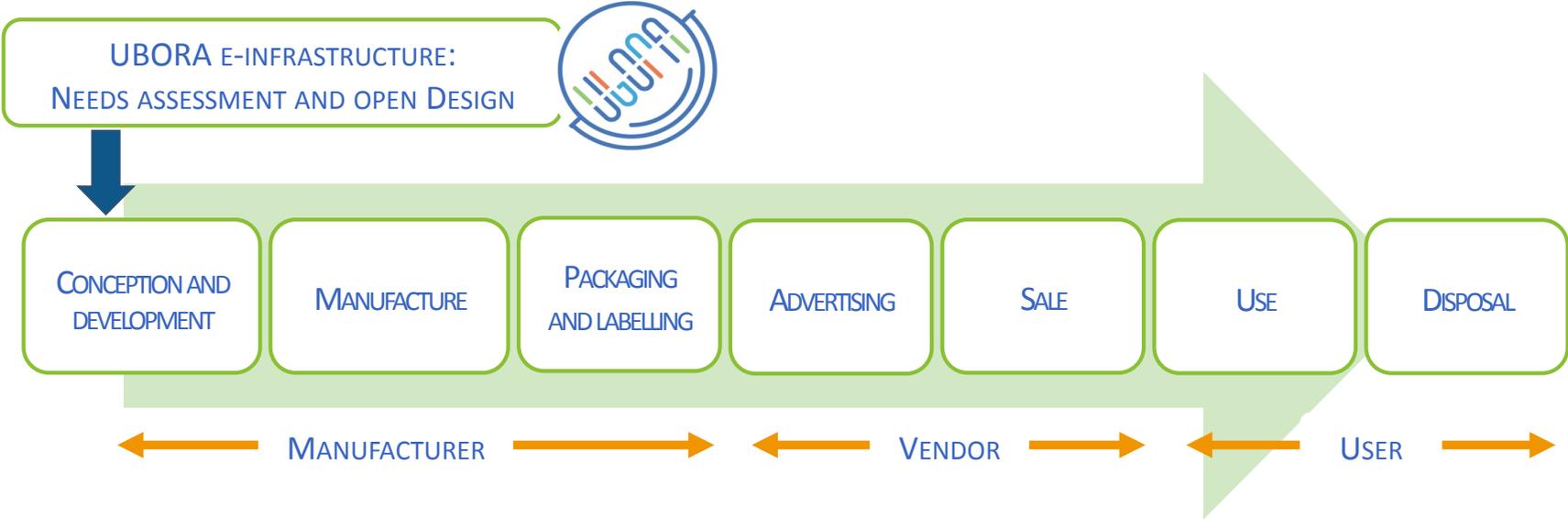
e-Infrastructure for collaborative design open source medical devices to address current and future global healthcare challenges

Empowering open source approach

- Quality and safety guidelines for biomedical devices, under the guidance of international standards and European MDR are the foundations
- Expert mentoring will ensure that the designs comply to highest technical standards at all steps
 - Mentors from Academia and Industry

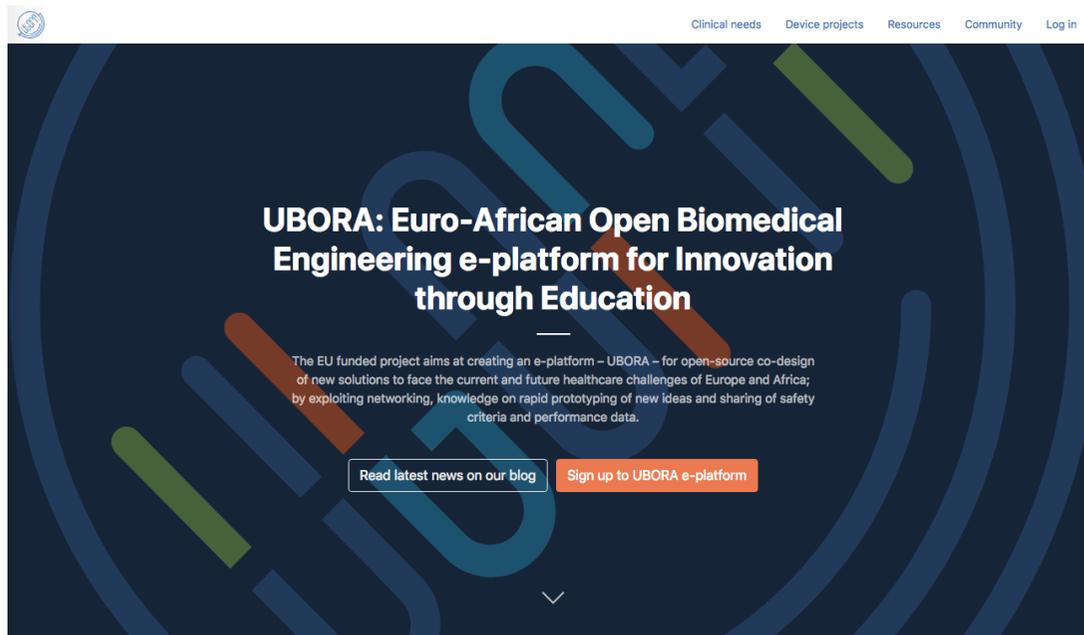


UBORA IN THE LIFE CYCLE OF A MEDICAL DEVICE

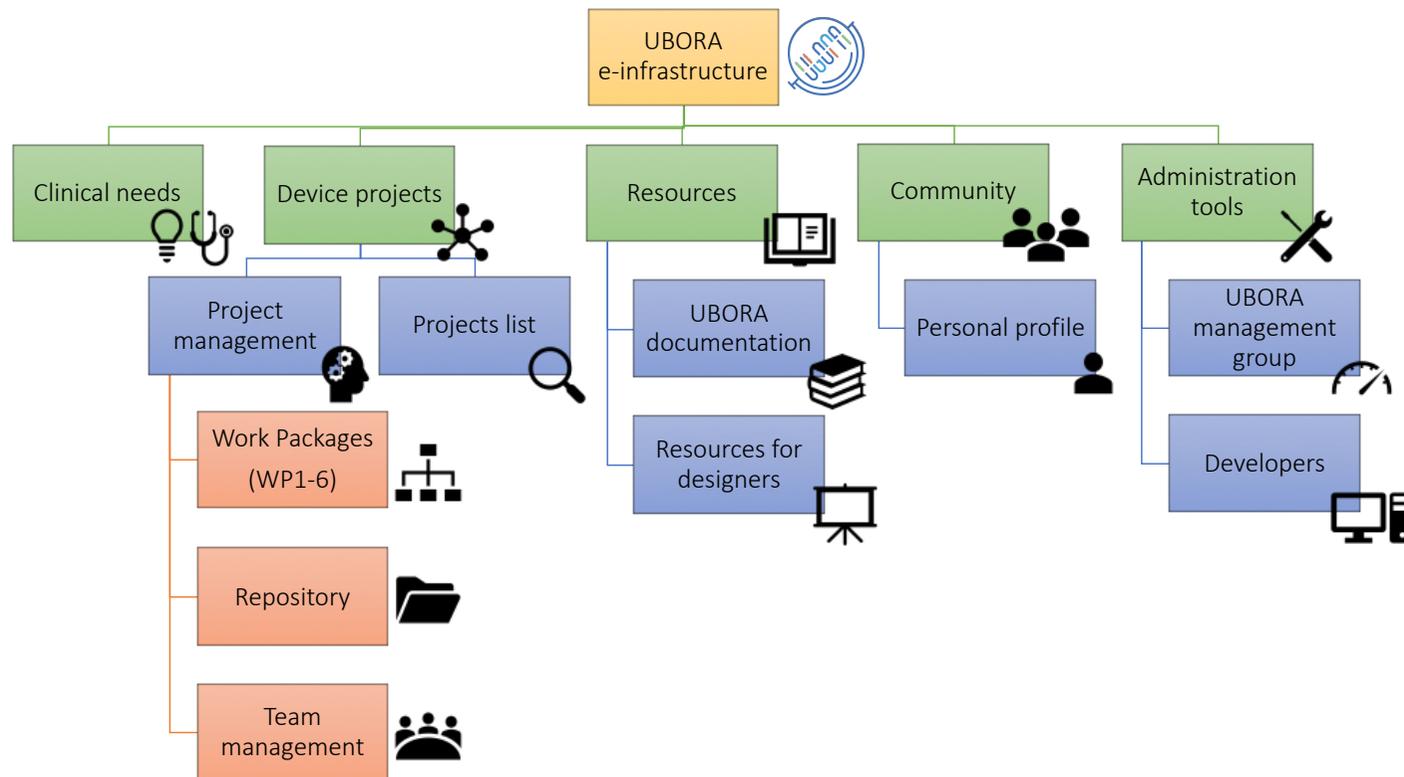


Use open source approach and appropriate technologies for reducing development costs and increasing safety!

UBORA E-INFRASTRUCTURE



[HTTPS://PLATFORM.UBORA-BIOMEDICAL.ORG](https://platform.ubora-biomedical.org)

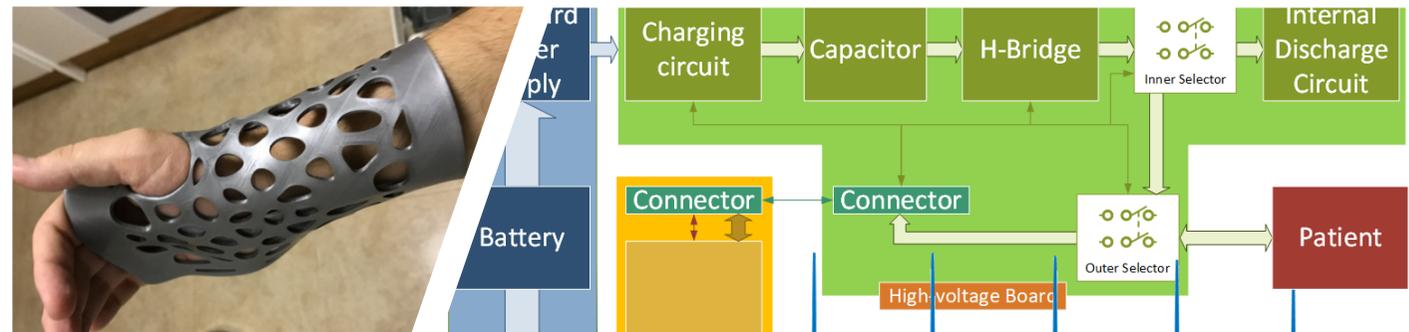


UBORA e-Infrastructure

[HTTPS://PLATFORM.UBORA-BIOMEDICAL.ORG](https://platform.ubora-biomedical.org)



- Open source automatic external defibrillator
- Solar powered autoclave
- 4D printed articular splint
- 3D printed cast for Ponseti method
- Breast Pump with Cooling and Preservation System of the Breastmilk
- Infant warmer



VISION



Kahawa Declaration
A Manifesto for the
Democratization of Medical Technology

<http://ubora-biomedical.org/kahawa-declaration/>





Share our vision!

<https://platform.ubora-biomedical.org>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 731053

