## TORCH COMMON SCIENCE AGENDA:

# Driving Collaboration and Transdisciplinary Research to Address Global Sustainability Challenges



Albert Diaz<sup>1</sup>, Christopher Evans<sup>1</sup>, Jaime Llorca<sup>1</sup>, Raul Ramos<sup>1</sup>, Vicente Royuela<sup>1</sup>, Ferenc Takó<sup>2</sup>. 1: Universitat de Barcelona / 2: Eötvös Loránd University (ELTE)



**OVERARCHING GOAL OF TORCH'S TRANSFORMATIVE RESEARCH AGENDA:** to foster collaboration within CHARM-EU by exploring common research interests and to unite researchers around major societal challenges in order to engage in responsible transdisciplinary research.

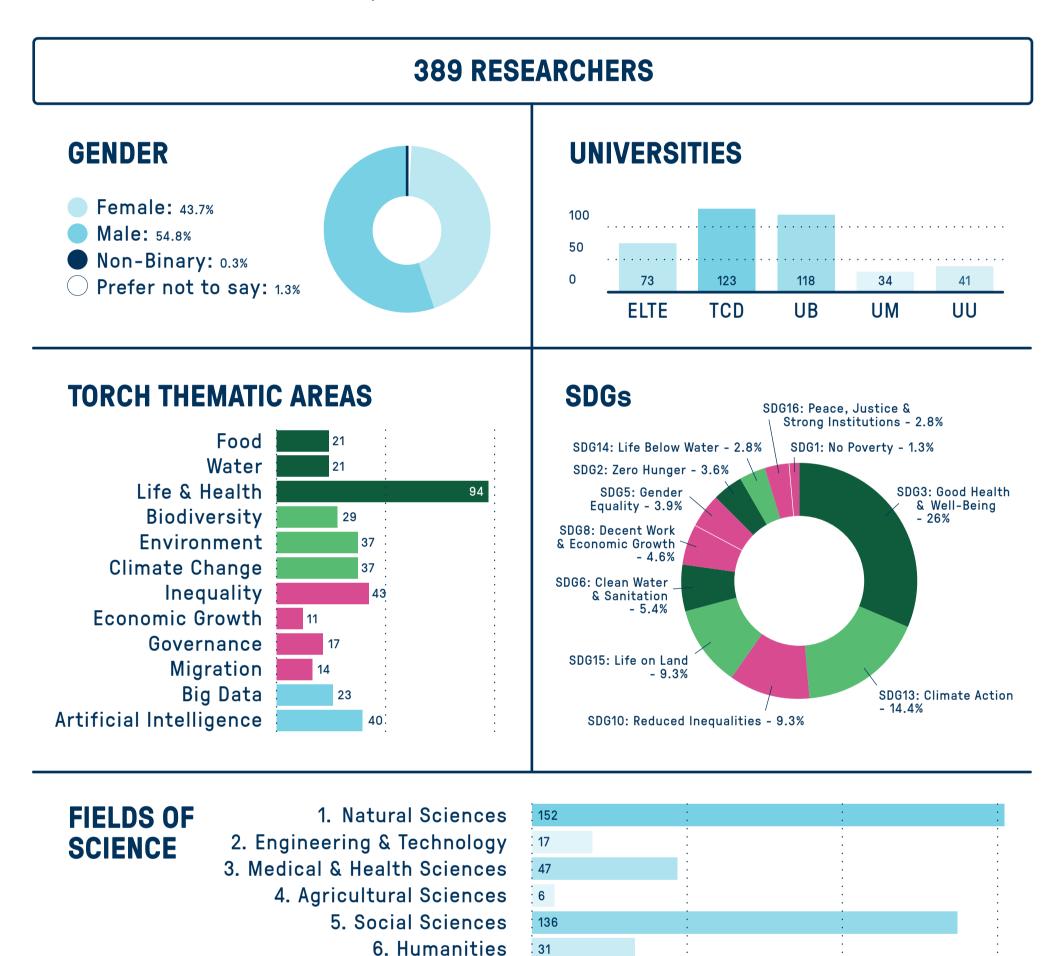
- Common Science Agenda: a challenge-driven framework to deliver relevant research proposals relevant for the society.
- Bottom-Up Collaborative Methodology: multidisciplinary research teams assemble around researchers' and universities' priorities, centred on specific SDGs.
- Implementation Approach: deployment of specialized tools and the experience of RMA units to support networking and research teams, and to target EU research funding.
- Action Plan: proposal for the creation of a joint CHARM-EU research support structure focused on transdisciplinarity.

# A Multi-Step Collaborative Process to Define Priorities and Develop Research Challenges



#### STEP 1. COLLATING RESEARCH INTERESTS

Questionnaire 1: research field; expertise; interests linked to TORCH thematic areas and SDGs.



#### STEP 2. INSTITUTIONAL VALIDATION OF PRIORITIES BASED ON STEP 1 RESULTS AND UNIVERSITIES' STRATEGIC PLANS

Three SDGs selected.







#### STEP 3. GROUPING RESEARCHERS AROUND SDGs

Questionnaire 2: individual research proposals linked to selected SDGs. Proposals grouped into general topics to form 3 multidisciplinary expert focus groups which then define specific research challenges.



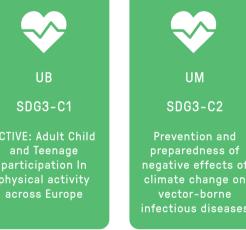




#### STEP 4. DRAFTING RESEARCH CHALLENGES

Six proposals by multidisciplinary teams.

TORCH Research Challenges  $\Rightarrow$ 











## **Developing Six** Research Challenges



### HOW

- Each university and the Alliance adopt one challenge and their research support unit provides support.

#### RESULTS

- Outcome: 6 researcher teams created and submitted 3 proposals to EU calls.

- Researchers clustered together based on interests and expertise (can be scaled up).

- Tools implemented to facilitate networking:

Guide of Experts

Collaboration Networks Apps

#### WHAT WE LEARNED (TO SHAPE THE ACTION PLAN)

• Research Challenges: SDGs offer opportunities for consortia rooted in CHARM-EU.

 Multidisciplinary Networks: strong connections & multidisciplinary teams formed; effort invested creates momentum for future initiatives.

• Pls: procedure required to identify and incentivize potential Pls.

Learning by Doing: TORCH team learned of researchers' needs for team/project support.

 Increased Commitment: CHARM-EU partners strongly support the initiative. • Horizon Europe: challenges well aligned with Horizon calls, confirming potential.

Role of RMAs: need for efficient decision channels within CHARM-EU and dedicated research

support to facilitate cooperation.

# Action Plan: Joint Support Strategy for Research Projects

#### **OBJECTIVES**

- Enhance cooperation.

- Foster transdisciplinary collaborative research driven by societal challenges.

- Support RRI.

#### TWO-STAGE ACTION PLAN:

#### 1. Create Network of Research Support Offices (NRSO):

Involve RMA units from each partner.

• Facilitate collaboration in research proposals (matchmaking).

Share good practices.

• Organize short visits and plan job shadowing (mutual learning).

Advise on CHARM-EU governance.

### 2. Explore possible Joint Virtual Research Support Office (JVRSO):

Based on NRSO input & focused on long-term structural cooperation.

- Tasks to include: research proposal support; competency mapping; strategic advice on R&I. • Benefits & expected outcomes: common science agenda & collaboration on EU proposals reinforced; research group competencies mapped; scientific networks created within CHARM-EU; promotion of internationalization and excellence in transdisciplinary research; professional development and mobility of R&I support staff; strategic knowledge and knowhow concerning EU/national R&I policies.







**CONTACT:** Jaime Llorca (jaimellorca@ub.edu). CHARM-EU Manager, Universitat de Barcelona.

