

Cost action: Added value and benefits

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My experience in COST actions

1

COST Action 837 « Plant biotechnology for the removal of organic pollutants and toxic metals from wastewaters and contaminated sites» (1999-2003)

2

COST Action 859 « Phytotechnologies to promote sustainable land use management and improve food chain safety» (2004-2009)

3

COST Action FA905 "Mineral-improved crop production for healthy food and feed » (2010-2014)

4

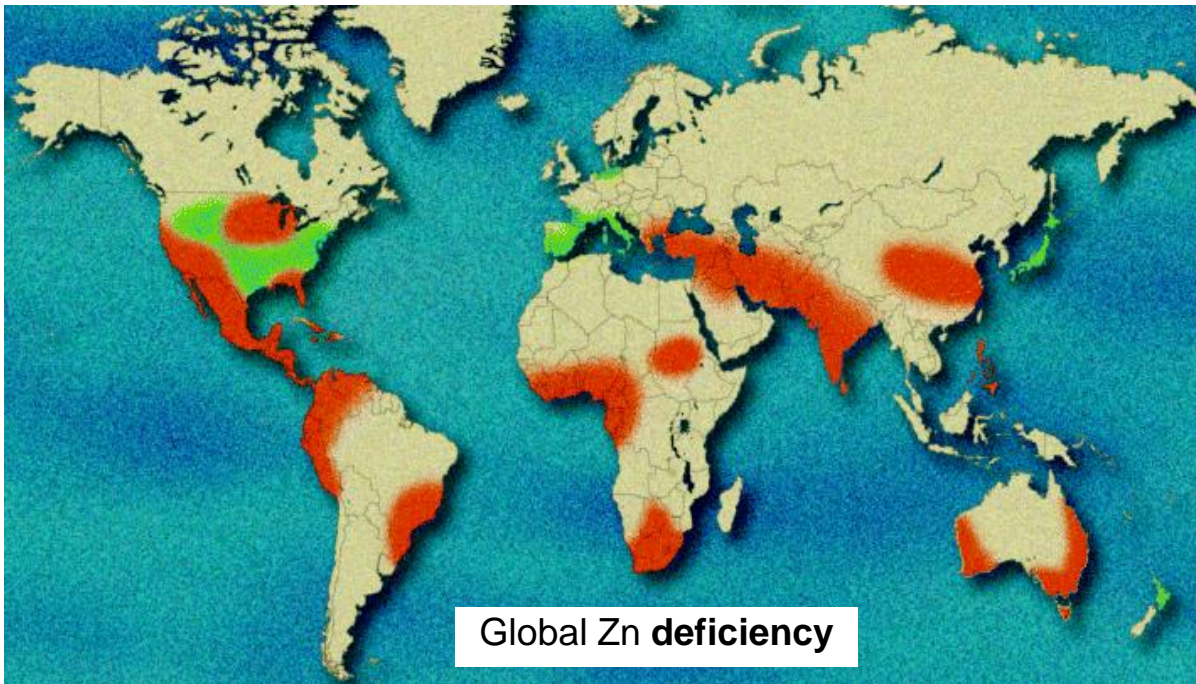
COST Action 19116 « Trace metal metabolism in plants » (2020-2024)

My responsibilities inside the COST Action 19116 « Plant Metals »

- Vice chair
- National delegate
- ITC conference grant coordinator
- deputy STSM coordinator

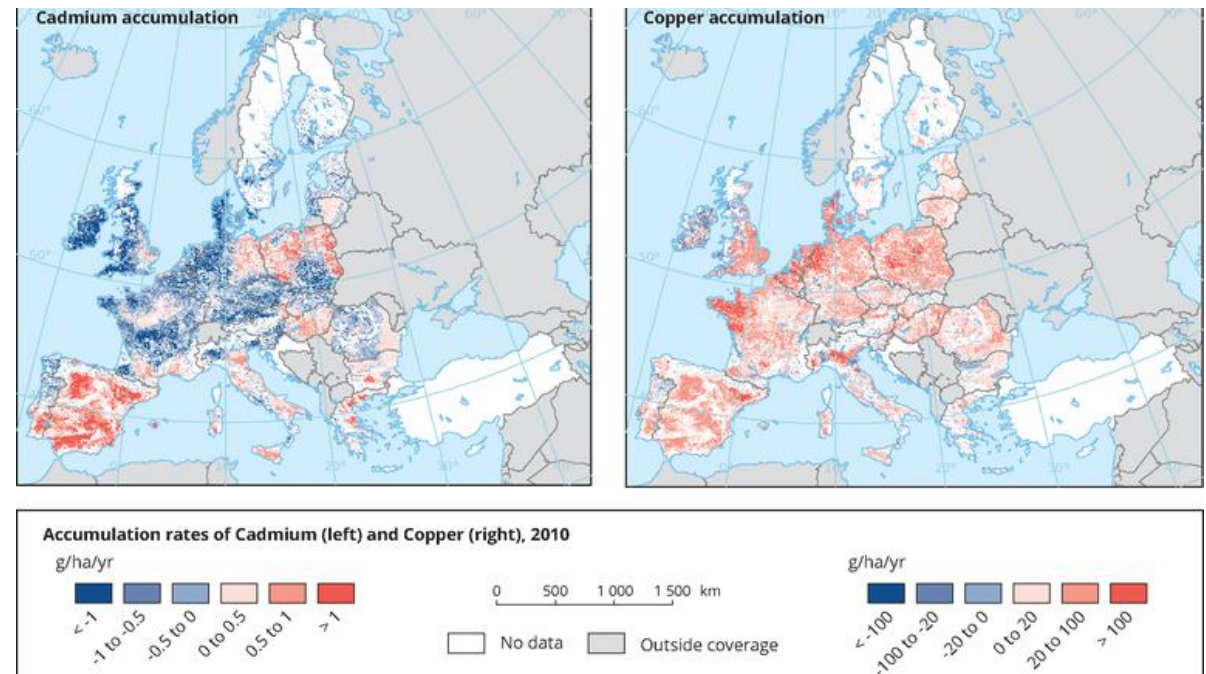
Challenge of the PLANTMETALS COST Action

PLANTMETALS tackles basic and applied issues related to trace metal deficiency or excess levels in plant physiology and crop production by the combined expertise of physiologists, (bio)physicists, (bio)(geo)chemists, molecular geneticists, ecologists, agronomists and soil scientists. Knowledge will be translated to the needs of farmers and consumers, with inputs from companies



Zn map From: Alloway BJ. 2001. Brussels, Belgium: International Zinc Association.

Cd+Cu pollution: maps from <http://www.eea.europa.eu> (European Environment Agency)



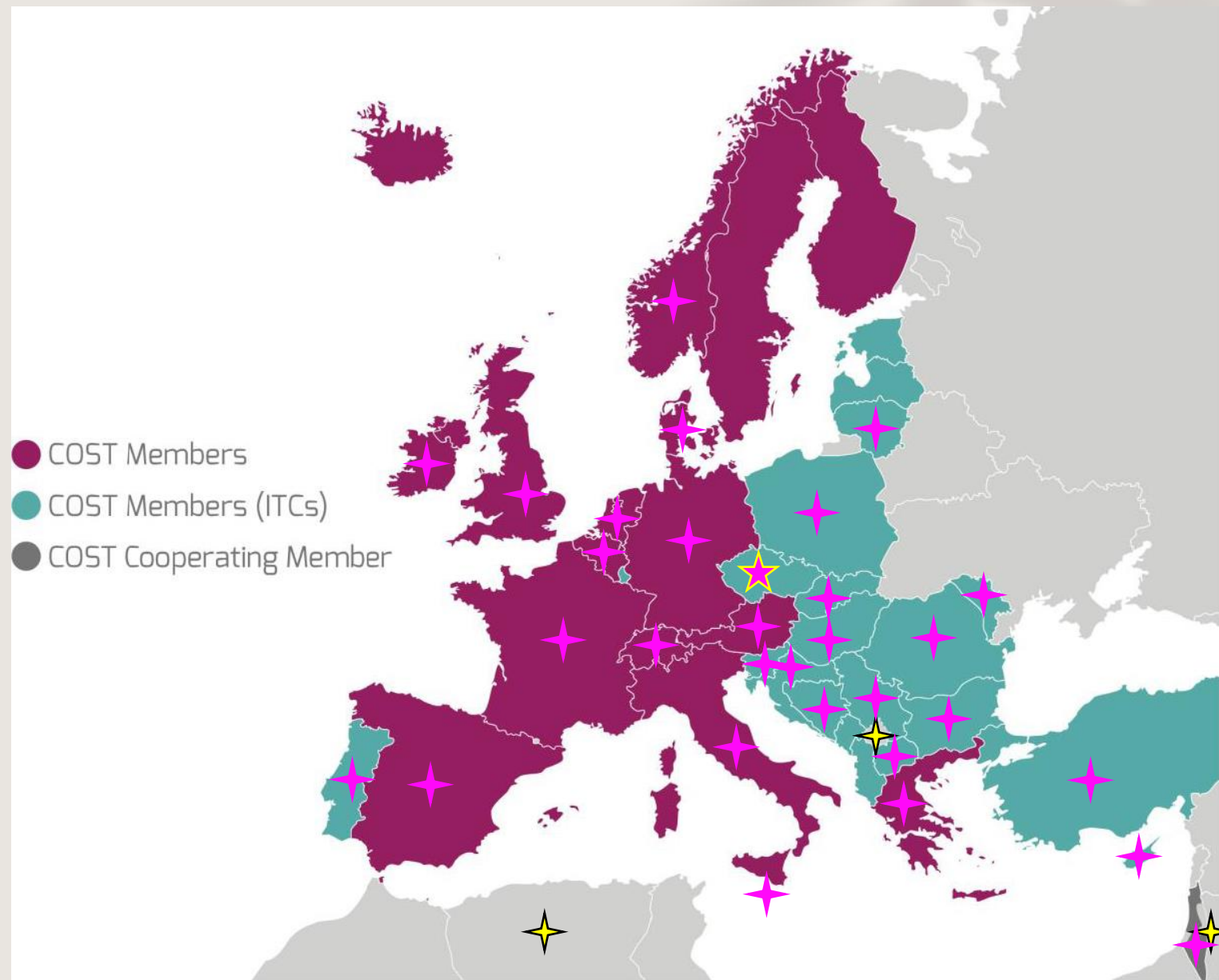
Current Network

The Action currently has currently 171 registered members from

32 full member countries (★)

4 „near neighbour“ countries (✦)

ITC: inclusive target countries
COST Near Neighbour Countries (NNC) **Algeria, Armenia, Azerbaijan, Belarus, Egypt, Jordan, Kosovo, Lebanon, Libya, Morocco, Palestine, Russia, Syria, and Tunisia.**



(+ Azerbaijan) ✦

Workgroups

WG1: Pathways of trace metals from the soil and through the plant.

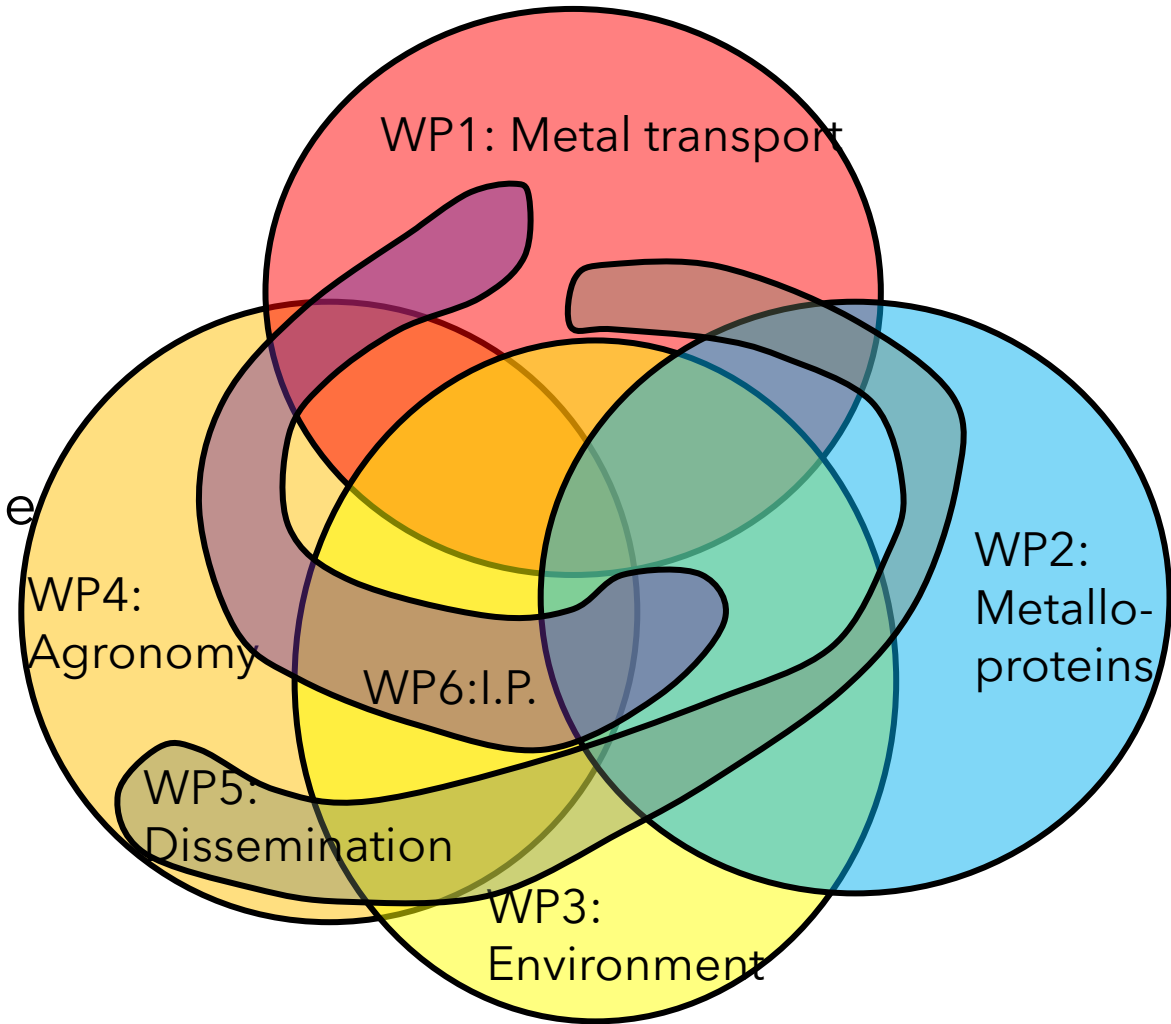
WG2: Metalloproteins important for trace metal homeostasis, metalloenzymes

WG3: Responses of trace metal metabolism to the environment: deficiency, toxicity, microorganism interactions

WG4: Agronomic aspects of trace metal homeostasis: targeted fertilisation, agricultural management, breeding

WG5: Dissemination and proposal writing

WG6: Intellectual property protection



History of this Action before its official start

February to August 2017: From idea to concept

- Feb: Idea of creating a COST network on metals in plants
- 17-19 August 2017: Minisymposium "Metals, Plants and People" in České Budějovice laid the foundations for a network grant application at COST. Nathalie Verbruggen, Manuel Gonzalez-Guerrero and Hendrik Küpper became **a core planning group** for writing the proposal.

Autumn 2017 to November 2018: First proposal

- Writing of the first proposal draft by the "core planning group", revisions involving a growing number of network members
- 27 April: 1st Submission (OC-2018-1-22837), with 51 proposing research groups/companies from 16 COST member countries
- 14 November 2018: Proposal was evaluated with 56 of 65 possible points --> not funded

November 2018-20 March 2020: Revised proposal

- Revisions of the proposal draft , first by the core planning group, and then with members of the proposal
- 3 Sept 2019: 2nd submission (OC-2019-1-23903), with 60 proposing research groups/companies from 20 COST member countries
- 25 March 2020: Action granted by COST after evaluation with 45 out of 50 possible points

March to October 2020: Preparing for implementation

- 26 March - 13 April 2020: Creation of the MoU based on the technical annex of the proposal first by the core planning team and then involving the whole network of proposers
- Further growth of the network, to 110 registered members from 30 countries
- Search for candidates for leading WGs
- **8-9 October 2020: 1st MC meeting = official start of the Action**

Action Networking tools

- « Networking is an excellent way for individuals at every stage of their career to discover exciting opportunities, meet new connections, and broaden personal research horizons. »
- « COST Actions have been designed to maximise networking possibilities, featuring a wide range of tools and additional activities, which benefit individuals and wider research networks alike through strengthening research outcomes and community knowledge. »

Added values and Benefits

Scientific network: synergy in expertise

Mobility : STSM in academic and private sectors

Financial support to participate to conferences: ITC conference grant

COST meetings (Individual WG - all WG)

Financial support to publish (3 different member countries)

Access to the latest equipment and analyses

Catalogue of working protocols

Opportunities to submit collaborative projects

Opportunities of training in summer schools

Short-Term Scientific Missions

STSM's are research visits of 5 days to 3 months between member countries of the Action

Applications can be submitted electronically via [e-COST](#) account. The selection will be performed by the [STSM / ITC conference grant selection committee](#)

The **criteria for selection** of STSM's, as decided by the Management Committee, are the following:

- 1)** Scientific quality of the application: originality, feasibility of approach, feasibility within timeframe proposed
- 2)** Compatibility with the COST Action: compatibility with the MoU, added value to Action, extended network of contacts, timeframe of application, timeframe of Action, justification of the finance requested

Short-Term Scientific Missions (suite)

- 3)** Qualifications of the Applicant: research planned vs. research already undertaken, publications, participation in international research cooperation, expected benefit for the applicant, some priority to Early Career Scientists*
- 4)** Application of Results: expected impact for the Action, dissemination of the result.
- 5)** Fair share of the budget between the participant countries, keeping in mind that the COST Action budget is proportional to the number of countries, but not related to members per country.
- 6)** Has the person in question already requested one? Priority should be given to those applicants who did not yet receive (much) STSM support

* « a Young Researcher and Innovator is a person of less than 40 years of age, regardless of whether they have a PhD or not »

ITC conference grant

- “ITC conference grants are grants aimed at young researchers from ITCs to attend beneficial international conferences that are not organised by COST Actions.”
- members of ITC: Bosnia-Herzegovina, Bulgaria, Cyprus, Czech Republic, Estonia, Croatia, Hungary, Lithuania, Latvia, Luxembourg, Malta, Montenegro, Poland, Portugal, Romania, Slovenia, Slovakia, the former Yugoslav Republic of Macedonia, Republic of Serbia and Turkey

ITC conference grant

The application should mention:

the title, author(s) and abstract of the contribution. An oral presentation should be proposed

the relevance of the conference for the PLANTMETALS' action. The contribution should be relevant for at least one WG.

Budget and eligibility:

the detailed description of the cost estimate, and the other sources of funding to attend the conference

2000 euros is the maximum allowance which can be granted

If the budget allows it, the same candidate can be granted a STSM and the participation to a conference during the same GP (grant period).

Report

A report summarizing the participation to the conference should be sent within one month after the end of the conference

Cost meetings

- organised by COST Action Management Committees (MC) in any COST Member State joining the network.
- MC meetings, working group meetings, workshops and conferences
- One topic / working group or general meeting with all members invited
- Reimbursement of travel and subsistence costs of the invited participants+ funding to organise the meeting.

A 3D rendering of a field of dark grey question marks. In the center, one question mark is highlighted in a bright yellow color. The word "Questions ?" is written in white text over the yellow question mark.

Questions ?