



This project is co-financed by the
European Union and the Republic of Turkey
Bu proje Avrupa Birliđi ve Türkiye Cumhuriyeti tarafından
finanse edilmektedir



Technical Assistance for Turkey in Horizon 2020 Phase-II
EuropeAid/139098/IH/SER/TR

Advisory Group Meeting – 1: Battery Flagship and Related Battery Calls

Recent Developments in Integration of TARAL to ERA, Prof. Hasan Mandal, President, TUBITAK

Prof. MANDAL gave his opening speech and presentation about Recent Development in Integration of Turkey Research Area (TARAL) to European Research Area (ERA). In his presentation he pointed out significant increase in research and development indicators, TUBITAK STI Funding and TUBITAK Academic Research and Development Funding. Furthermore, Prof. Dr Mandal gave information about new strategic approach of TUBITAK and the creation of national target and input oriented programs.

He showed a diagram which includes Mission Oriented Approach by dividing into three such as Mapping of National Priorities, Mapping the global trends and Technological Capability Analysis. Different Program/Project Types/Funding Schemes underlined by Prof. Dr. Mandal based on TRLs.

TUBITAK 2019-2020 call counts with respect to Sector explained by Prof. Mandal with their total numbers and he gave examples for call text regarding the automotive and energy sector both in Turkish and English as well.

He also indicated first pillar as mission oriented stated second pillar including its 10 platforms by mentioning Center of Excellence Support Programme and Industry Innovation Network Mechanism.

National STI Impetus towards H2020 and Enhancing Qualified Human Resources Recent Initiative and International Fellowship for Outstanding Researchers defined by Prof. Mandal. He also mentioned the TUBITAK supports for Young Researchers and Experienced Researchers.

Prof. Mandal stated Support Program for Frontier Researchers will be announced. And he briefly explained the Technology Based Start-Ups and Innovation Interfaces and TUBITAK UIDD department and its core areas including EU funded and International funded projects.

Çankaya Mah. And Sok. 8/12 06680 Çankaya, Ankara / Turkey
Tel : +90 312 467 61 40 • Fax : +90 312 219 69 30



REPUBLIC OF TURKEY
MINISTRY OF INDUSTRY
AND TECHNOLOGY





This project is co-financed by the
European Union and the Republic of Turkey
Bu proje Avrupa Birliđi ve Türkiye Cumhuriyeti tarafından
finanse edilmektedir



Technical Assistance for Turkey in Horizon 2020 Phase-II
EuropeAid/139098/IH/SER/TR

At the end of his speech, Prof. Mandal referred to Importance of Batteries for EU and Turkey and expectation from the Advisory Group Meeting; (i) raising awareness, (ii) cooperation and (iii) setting up a National Battery Focus Group within Turkish Industry and Academy.

Battery 2030+: A Large Scale Research Initiative on Battery Technologies, Prof. Kristina Edström, Uppsala University

At the beginning of her speech, Prof. Edstrom pointed out that she is directly working with industry sector. She also explained why the Europe is connected to this sector by defining Transport, Large Scale Storage and UPS & Grid Quality. She underlined the importance of increasing number in electric vehicles and decreasing the cost of the Li-on Batteries.

She also explained the how the Battery topic born with its background, the first steps and overall goal – to meet the UN Goals.

The scope, actors and Roadmap of a Long Term Research Initiative in the Battery Research and Infrastructures Landscape unlined by Prof. Edstrom. She also mentioned the importance of cooperation with DG-RTD on this topic. In addition, she divided Batteries of the Future into three as Ultrahigh performances, smart functionalities and Environmental sustainability.

For A long term Battery Research Roadmap, she overemphasized these two questions by mentioning European Commission;

- 1- Can this be manufactured?
- 2- Can this be recycled?

She also explained the A full research Eco-System with the related percentages.

She also remarked Core Group and Stakeholder Supports for all the areas, and the Manifesto as well. As an objective, she underlined the establishing the Battery 2030 roadmap. She also encouraged the participants for the workshop that will be held after the summer season.

Prof. Edstrom underlined the upcoming calls following;

- Materials 20M Euro
- Sensors 10M Euro
- Self Healing 10M Euro
- M – ERA Net – 5M Euro from EC and at least 10M Euro from Member states.

Çankaya Mah. And Sok. 8/12 06680 Çankaya, Ankara / Turkey
Tel : +90 312 467 61 40 • Fax : +90 312 219 69 30



REPUBLIC OF TURKEY
MINISTRY OF INDUSTRY
AND TECHNOLOGY





This project is co-financed by the
European Union and the Republic of Turkey
Bu proje Avrupa Birliđi ve Türkiye Cumhuriyeti tarafından
finanse edilmektedir



Technical Assistance for Turkey in Horizon 2020 Phase-II
EuropeAid/139098/IH/SER/TR

Prof. Edstrom talked about Accelerated Battery Material Discovery and Modelling Traditional Battery Development. She also mentioned the Smart Sensory and Self-Healing topics during her presentation.

Battery Technologies in Turkey & Horizon2020 Battery Calls, Dr. Orkun Hasekiođlu, Advisor to the President of TUBITAK

Dr. Orkun Hasekiođlu began his speech with the entrance of the program of the event including announcing the Batteries with numbers and market budget by giving the statistics on the basis of MWh from over the world.

He also mentioned the typology of the participants based on the questionnaire that shared with filled by participants before the event. He also talked about the results of priorities of the participants.

He gave brief description about H2020 and National Coordination Office.

FP6, FP7, H2020 and HE programmes with their budgets and durations explained by Dr. Hasekiođlu. In addition, he referred to three pillars. Moreover, he gave information about TUBITAK Horizon 2020 Support and Award Programems

He gave detailed information about Battery 2020 Call topics by mentioning their challenges, scopes, expected impacts, budgets, type of action and deadlines.

At the end of his speech, Dr. Hasekiođlu gave the structural details for Competencies of Tubitak Marmarma Research Center (MAM). He strongly emphasized the capacity of the laboratories of the institution and areas of work.

His speech was ended after the ongoing researches part.

Batteries Europe – European Technology and Innovation Platform, Ilka von Dalwigk, InnoEnergy

At beginning of her speech, Ms. Dalwigk mentioned the European Battery Market and its capacity as 250 billion EUR per year and providing 4 million jobs for people.

She respectively stressed the topics following;

- 1- Strategic Action Plan on Batteries

Çankaya Mah. And Sok. 8/12 06680 Çankaya, Ankara / Turkey
Tel : +90 312 467 61 40 • Fax : +90 312 219 69 30



This project is co-financed by the
European Union and the Republic of Turkey
Bu proje Avrupa Birliđi ve Türkiye Cumhuriyeti tarafından
finanse edilmektedir



Technical Assistance for Turkey in Horizon 2020 Phase-II
EuropeAid/139098/IH/SER/TR

- 2- Batteries Europe the ETIP for Batteries
- 3- Relation to other European Battery Networks: TRL 7-9, TRL 4-8, TRL 1-3.
- 4- Draft Governance Proposal: General Assembly, Executive Committee and Working Groups.
- 5- Composition of Working Groups;
Leadership: RTOs and academia
Members: Industry and Associations, MS Representatives and Facilitators.
- 6- Working Group Structure and Topics to be addressed
Cross cutting issues
Topics
Thematic working groups
- 7- Ideas `we` would like to foster
- 8- Working Group Descriptions

Ms. Dalwigk underlined the importance of goals and tasks of National and Regional Stakeholders for the NCPs.

She also briefly explained the working groups with their goals, tasks and stakeholders as following:

- 1- WG-1 New and Emerging Battery Technologies
- 2- WG-2 Raw Materials and Recycling: Next meeting will be in Milan on 13-14 of June and this group is very effective on Northern European Countries.
- 3- WG-3 Advanced Materials
- 4- WG-4 Manufacturing and Cell Design
- 5- WG-5 Application and Integration – Transport: Next meeting will be in Munich on 14 of May. The topics are fast charging and transport.
- 6- WG- 6 Application and Integration Stationary

Battery R&D Activities in RINA Consulting, Donato Zangani, R&D Manager at RINA Consulting

Mr. Zangani gave information about RINA Consulting including their competences, experiences and services such as Energy, Marine Industry, Transport & Infrastructure and Certification.

Çankaya Mah. And Sok. 8/12 06680 Çankaya, Ankara / Turkey
Tel : +90 312 467 61 40 • Fax : +90 312 219 69 30



This project is co-financed by the
European Union and the Republic of Turkey
Bu proje Avrupa Birliđi ve Türkiye Cumhuriyeti tarafından
finanse edilmektedir



Technical Assistance for Turkey in Horizon 2020 Phase-II
EuropeAid/139098/IH/SER/TR

Their numbers of projects, achievements, `where we work` and works related the battery technologies explained by him. He gave examples from their projects as (i) Muse Grids (ii) Smile in A nutshell (iii) E-lobster and (iv) Scores in a nutshell.

The approach of Smile was introduced to participants. Moreover he also mentioned the situations of ORKNEY, SAM SO and MADEIRA.

Following the opening speeches of TUBITAK presidents and guest speakers, participants made presentation of their capabilities and target call topics.

Çankaya Mah. And Sok. 8/12 06680 Çankaya, Ankara / Turkey
Tel : +90 312 467 61 40 • Fax : +90 312 219 69 30



REPUBLIC OF TURKEY
MINISTRY OF INDUSTRY
AND TECHNOLOGY

