NEUROTECH

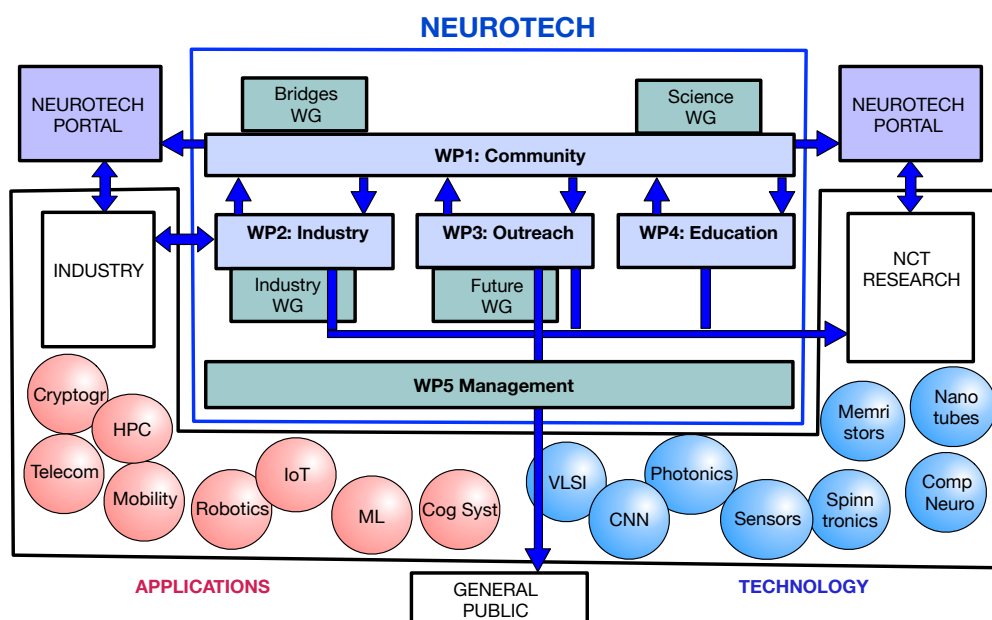## Deliverable D5.2: Report on created Work Groups

- Project: NEUROTECH, Grant number 824103
- Report dissemination level: public
- Report target delivery date: project month 9 = July 2019

Summary

The formation of the working groups has begun and was consolidated at the NEUROTECH Forum at IMEC on November 4th 2019. The first meetings of the working groups will take place, by videoconference, early in 2020, with a focus on developing outputs in the form of white papers and/or blogs.

Introduction

Working Groups. An important part of the management structure of the project will be creating of Working Groups (Task 5.3) that will include both members of the consortium and external members. These groups will serve both as **advisory boards** for the project and insure that actual work on **development of the project's outcome**, such as the **Roadmap**, **Messages**, and **state of the art analyses** is driven by the NCT community beyond the consortium members. The relationship between the four working groups and other Neurotech activities is summarized in the diagram below.

The 4 Working Groups are:
- The Industry Working Group
- The Science and Technology Working Group
- The Bridges Working Group
- The Ethics and Future Discussion Working Group

These groups, and their current membership, are described below.

1. **Industry Working Group** (led by THALES) will mainly support WP2 and will recruit representatives from industry and SMEs to advise and promote the NEUROTECH's activities and represent the view of the private sector on needs for, and use cases of, NCT.

   Goals:
   - Recruit representatives from industry and SMEs
     - industrial players (e.g., Bosch, STM, ARM)
     - SMEs (e.g., INILabs, INIVation, Pixium, Mindtrace, Xilinx)
   - Advise and promote the NEUROTECH's activities
   - Represent the view of the private sector on needs for and use cases of NCT
   - Provide input to Roadmap development
     - potential application areas;
     - available technology;
     - main road blocks.

   C**urrent membership status**:

Organizer:	Alice Mizrahi	Thales
NEUROTECH:	Antonio La Porta	IBM
	Peter Debacker	IMEC
Inudstry:	Maurice Stassen	Philips
	Sanjay Lalbahadoersing	ASML
	Dominique Grelet	ATOS
RTO/Governm. RO	Yannick Le Tiec	CEA Leti
	Alexandre Valentia	CEA Leti
	Manolis Sifalakis	imec
	Federico Corradi	imec
	Luc Foubert	CNRS
	Dessislava Nikolova	imec
	Bijoy Kundu	IIS Fraunhofer
Start-ups / SMEs	Laurent Daudet	LightON
	Igor Carron	LightON
	Dylan Muir	aiCTX
	Madia Oreste	ASM
	Menno Lindwer	GrAImatterlabs
	Omer Aviad	NOVAMI
	Pierre Bessiere	HawAI
	Zhuo Zou	Neuhelium
Academia:	Jörg Conradt	KTH

	Gianvito Urgese	POLITO
	Laurent Rodriguez	Univ. Côte d'Azur
	Daniel Mannion	UCL
	Van Dyck Michiel	Uni Antwerpen

2. **Science and Technology Working Group** (led by CNR) is a board of Academic and R&D department members to have a broader representation of European NCT community when analyzing the state-of-the-art, supporting mainly WP1.

This group will unite Academic partners who are strong on NCT but are not on our consortium (e.g. Univ. of Sevilla, ICTEAM Institute, TU Dresden) and support the project in analyzing the state of the art and shaping vectors for possible future developments of the NCT.

Goals:
- Foster interaction among interdisciplinary communities involved in the NCT
  - materials, devices, circuits and systems, neuroscience, theory, algorithms, applications
  - track new advances in the state-of-the-art in NCT
- Contribute to the cartography of NCT in Europe: research groups, RTO, industries, SMEs
  - create links among the various projects in Europe on neuromorphic technologies
- Contribute to summers school and events directed to the general public, training of young researchers, organization of workshop
- Give/receive inputs and feedbacks to/from industry towards new technologies and applications
  - contribute to the NCT roadmap
  - prepare report (and possible white paper and/ or open access review papers) on the current advances in the NCT field

C**urrent membership status**:

Organizer:	Sabina Spiga	CNR-IMM
NEUROTECH:	Elisa Vianello	CEA-Leti
	Elisabetta Chicca	Un. Bielefield
	Bert Offrein	IBM
	Chiara Bartolozzi	IIT
	Steve Furber	UNIMAN
	Michael Schmuker	UHERTS

Industry:	Sonal Sengupta	EV Biotech
	Sanjay Lalbahadoersing	ASML
	Hessel Sprey	ASM
	Madia Oreste	ASM
	Dominique Grelet	ATOS
	Bert Offrein	IBM Zurich
Start-ups/SME	Laurent Daudet	LightOn
	Zhuo Zou	Neuhelium
	Menno Lindwer	GrAImatter Labs
	Dylan Muir	AiCtx
	Yovav Kalifon	Novami
RTO/Gov. RO	Luc Foubert	CNRS
	Damien Querlioz	CNRS and Univ. Paris Sud
	Bijoy Kundu	IIS Fraunhofer
	Marco Breiling	IIS Fraunhofer
	Johannes Leugering	IIS Fraunhofer
	YuanYuan Shi	imec
	Dessislava Nikolova	imec
	Federico Corradi	imec
	Manolis Sifalakis	imec
	Henk Corporaal	TUE

Academia:	Jörg Conradt	KTH
	Niklas Vollmar	RWTH Aachen
	Andreas Andreou	UCY
	Piotr Dudek	Univ. Manchester
	Daniel Mannion	UCL
	Laurent Rodriguez	Univ. Côte d'Azur
	Gianvito Urgese	POLITO
	Sebastian Schmitt	Univ. Heidelberg
	Andreas Grübl	Univ. Heidelberg
	Marian Verhelst	KU Leuven
	Shaochuan Chen	RWTH Aachen
	Marian Verhelst	KU Leuven
	Bernabe Linares-Barranco	CSIC, Univ. Sevilla
	Regina Dittmann	FZ Jülich
	Hans Hilgenkamp	Univ. Twente
	Francisco Barranco	UGR
	Charlotte Frenkel	Univ. Clouvain
	Van Dyck Michiel	Univ. Antwerpen

3. **Bridges Working Group** (led by IMEC) will form a cross-national group of representatives of RTOs and multi-disciplinary networks and will actively promote establishment of contacts across geographical and disciplinary boarders, linking WP1 to WP2 and WP3.

This group will unite RTOs on the consortium and the ones in countries that are not yet in our community (in Netherlands, Spain, Scandinavia, Eastern part of Europe), and representatives of other communities (e.g., robotics, photonics, quantum computing, HPC) and work on finding connections, establishing communication

channels, and formulation of joined work fields and challenges that require thinking and work across domains and country borders.

Goals:
- Promote establishment of contacts across geographical and disciplinary borders
  - Netherlands, Spain, Scandinavia, Eastern part of Europe.
- Establish contacts across disciplinary borders
  - robotics, photonics, quantum computing, HPC, etc.
- Establish communication channels
- Formulate joined work fields and challenges

C**urrent membership status**:

Organizer:	Valentina Terzieva	IMEC
NEUROTECH:	Peter Debacker	IMEC
Industry:	Sonal Sengupta	EV Biotech
	Dominique Grelet	ATOS
	Yovav Kalifon	Novami
	Madia Oreste	ASM
RTO/Gov. RO	Manolis Sifalakis	imec
	Federico Corradi	imec
	Marco Breiling	IIS Fraunhofer
Academia:	Hans Hilgenkamp	Univ. Twente
	Van Dyck Michiel	Univ. Antwerpen

4. **Ethics and Future Discussions Working Group** (led by UNIMAN,) will include members who work in the field of AI ethics, legal issues, and philosophy, as well as media people active in this topic and will both support WP3 and help disseminate its outcome.

Goals:
- Involve ethics experts, philosophers, visionaries of AI and media people with NCT researchers to formulate strategies to enable a sustainable future for technology
- Consider the opportunities and threats created by NCT and AI.
- Provide input to and approve the Ethics statement document (to be published as a blog)

C**urrent membership status**:

Organizer:	Steve Furber	UNIMAN
Neurotech:	Yulia Sandamirskaya	UZH
Industry:	Sonal Sengupta	EV Biotech
	Madia Oreste	ASM

	Dominique Grelet	ATOS
Start-up/SME	Dylan Muir	AiCtx
RTO/Gov. TO	Federico Corradi	imec
	Manolis Sifalakis	imec
	Luc Foubert	CNRS
Academia:	Vincent Mueller	U. Leeds
	Ron Chrisley	U. Sussex
	George Constantinides	Imperial College, London
	Gianvito Urgese	POLITO
	Laurent Rodriguez	Univ. Côte d'Azur
	Van Dyck Michiel	Univ. Antwerpen

Next step

We will hold initial meetings of the working groups by videoconference early in 2020, and regular meetings thereafter. All attendees at the Forum were invited to participate in one or more Working Group, and the membership lists above are based largely on responses at the Forum, with the addition of invited experts. Each group will hold a series of discussion which will form the input to a White Paper and/or blogs from that group. Workgroups will contribute to formulation and refinement of the NCT Roadmap, Cartography of active Labs, companies, projects, and networks, Ethical statements, and Outreach to related communities through workshop organization, invitations to events and thematical special issues. Each WG will obtain a webpage on the NEUROTECH Portal, where membership and activity of the Workgroup will be reflected.