

EARTO Memo on EARTO Members' Participation to H2020 (data from European Commission eCorda database from June 2016)

12 July 2016

This memo provides information on EARTO Members' Participation to H2020 so far and compares it to FP7. The data used for this analysis has been gathered from the European Commission eCORDA database from June 2016 for the H2020 data, and from October 2014 for the FP7 data.

It is important to note that in the H2020 data presented below, the focus has been put on the three pillars of the programme (Excellent Science, Industrial Leadership and Societal Challenges). However, the total figures presented for H2020 also include other sub-programmes such as Euratom, Science with and for Society, Spreading Excellence and Widening Participation for instance.

Also, EARTO membership enlarged between FP7 and H2020. There are therefore some differences between the lists of EARTO members in October 2014 (used for FP7 data) and today (used for H2020).

Summary of the results

1. EARTO members strongly contributing to H2020

EARTO members received
7,7%
of H2020 EC funding

while EARTO members only represent **1%** of all H2020 beneficiaries

Projects involving at least one EARTO member received

41,6%

of H2020 EC funding

15%

of all H2020 projects include at least one EARTO member

2. EARTO members fostering industry participation in H2020 projects

The average industrial involvement in H2020 projects increases to

31,2%

when EARTO members are involved in the project
from **25,7%** when they are not part of the consortium

This share increases even to **33,2%** when considering only the 10 largest European RTOs

3. EARTO members involved in H2020 large multi-stakeholders collaborative projects

H2020 projects with EARTO members receive
€4,8m

of EC funding
on average in H2020

while the average EC funding per project in H2020 is **€1,7m**

H2020 projects with EARTO members count
12

partners per project
on average in H2020

while the average in H2020 is **3** partners per project

4. EARTO members strongly contributing to the Industrial Leadership pillar

In the Industrial Leadership pillar EARTO members count 8 of the top 10 participants in terms of EC contribution and 7 of the top 10 coordinators while there are 5556 beneficiaries in total in this pillar	In the Industrial Leadership pillar 27,1% of the projects include at least one EARTO member and those projects received 60% of the EC funding available in this pillar	In the Industrial Leadership pillar EARTO members received 13,3% of H2020 EC funding available while EARTO members only represent 1,6% of the beneficiaries in this pillar
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5. EARTO members actively contributing to the Societal Challenges pillar

In the Societal Challenges pillar EARTO members count 6 of the top 20 participants in terms of EC contribution while there are 8425 beneficiaries in total in this pillar	In the Societal Challenges pillar 24% of the projects include at least one EARTO member and those projects received 49% of the EC funding available in this pillar	In the Societal Challenges pillar EARTO members received 7,5% of H2020 EC funding available while EARTO members only represent 1,3% of the beneficiaries in this pillar
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6. EARTO members taking responsibility in H2020

Each EARTO member receive €570k of EC contribution per project on average in H2020 while the average EC contribution per participation is €410k	EARTO members coordinate 4,8% of all H2020 projects	EARTO members coordinate 1/3 of all H2020 projects in which they participate
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1. EARTO members strongly contributing to H2020

The data sample presented and analyzed in this memo includes 9448 projects for H2020 and 25237 projects for FP7. EARTO members represent 1% of the total number of beneficiaries in H2020.

1.1. EARTO members involved in H2020 projects

Up to now, EARTO members count 2254 approved participations in 1420 H2020 projects (figure 1). In comparison, for FP7 EARTO members counted 6717 participations in 4448 FP7 projects. There can be several EARTO members participating in the same project which explains why the number of EARTO members' participations is higher than the number of projects in which EARTO members are involved.

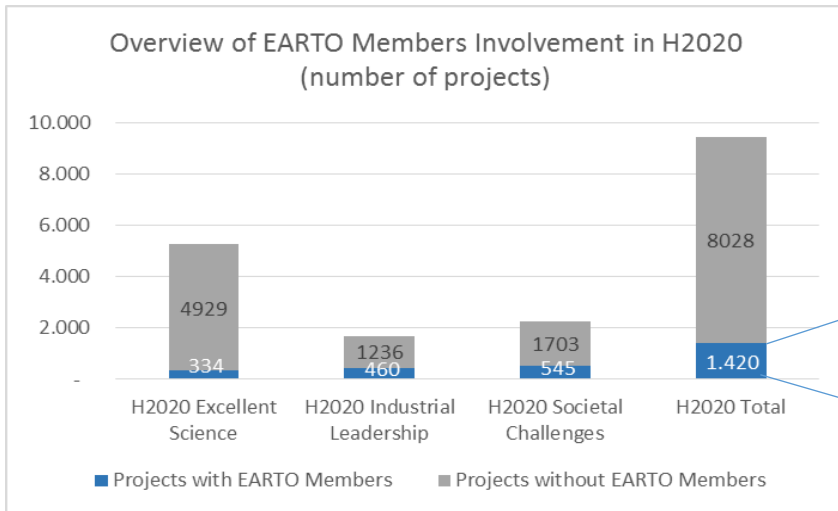


Figure 1

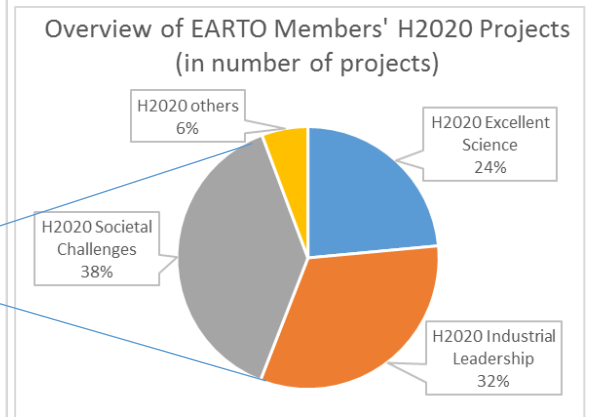


Figure 2

When looking pillar per pillar for H2020 (figures 1 & 2):

- 38% of EARTO members' projects are in the Societal Challenges pillar, which represents 545 projects.
- 32% of EARTO members' projects are in the Industrial Leadership pillar, which represents 460 projects.
- EARTO members participate less to Excellent Science with 334 projects, which represents 24% of EARTO members' projects.

Up to now 15% of all H2020 projects so far include at least one EARTO member (figure 3). This is slightly less than for FP7 projects in which EARTO members participated in 17,6%.

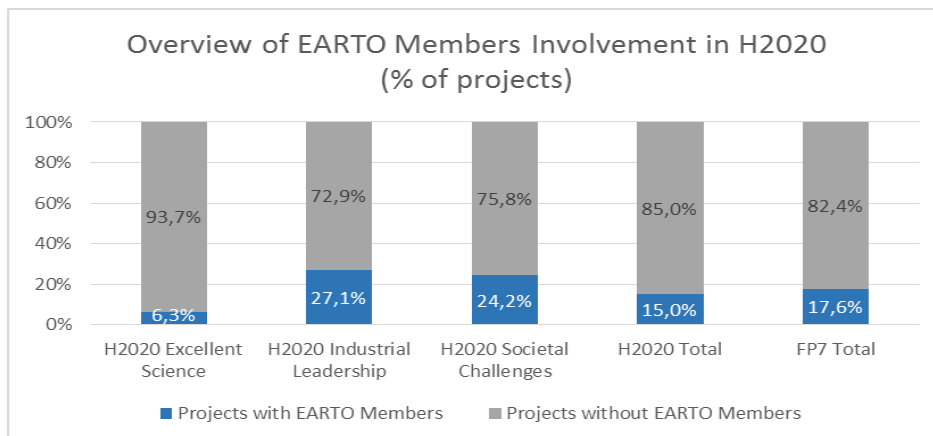


Figure 3

When looking pillar per pillar for H2020:

- 27,1% of the projects under the Industrial Leadership Pillar include at least one EARTO member. The involvement of EARTO members in Industrial Leadership is noteworthy.
- Similarly, EARTO members participated in more than 24% of the projects under Pillar III, Societal Challenges.

1.2. High EC contribution in EARTO members' projects

The data sample presented and analysed in this memo includes a total EC contribution of €16,4bn for H2020 and €45bn for FP7. So far, the pillars Societal Challenges and Excellent Science are the ones that received the highest EC contribution (almost €6bn each). The pillar Industrial Leadership received €3,6bn EC contribution. EARTO members received a total EC contribution of €1,3bn (figure 4). EARTO members participated in projects that received a total EC contribution of €6,9bn (figure 6).

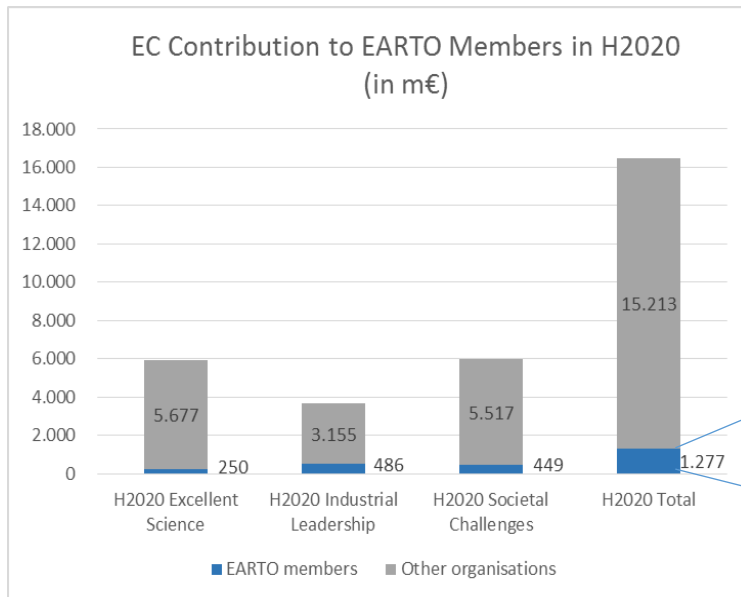


Figure 4

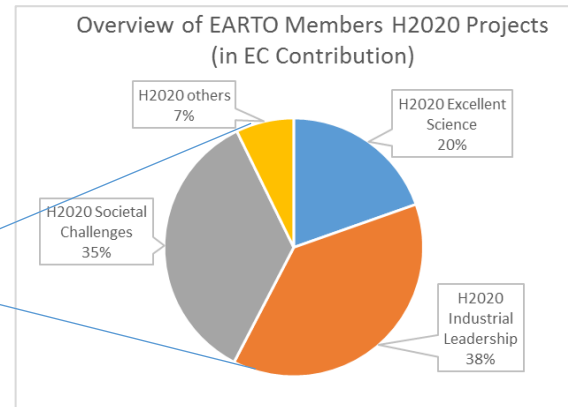


Figure 5

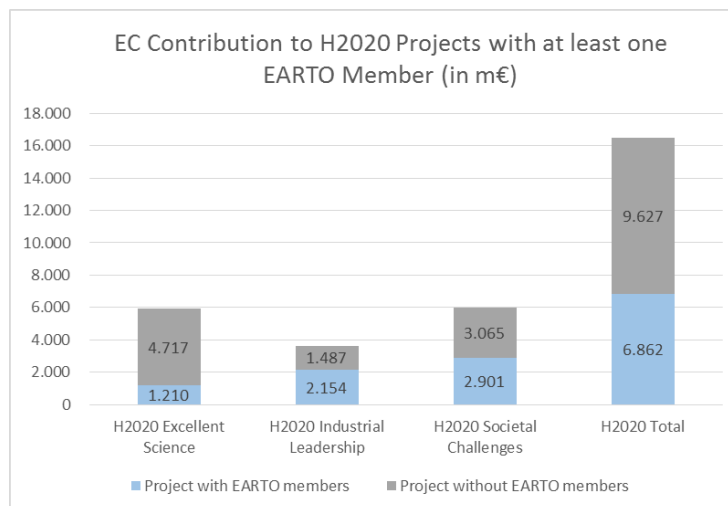


Figure 6

When looking pillar per pillar for H2020 (figures 4 & 5):

- EARTO members received an EC contribution of €486m EC Funding in the Industrial Leadership pillar, which represents 38% of EARTO members' EC funding.
- They receive €449m EC funding in the Societal Challenges pillar which represent 35% of EARTO members' EC funding.
- EARTO members receive less from Excellent Science: €250m, which is 20% of EARTO members' EC funding

In addition, 7,7% of all H2020 EC funding so far was given to EARTO members (figure 7), while EARTO members represent only 1% of the total number of beneficiaries in H2020. Furthermore, 41,6% of H2020 EC funding was given to projects involving at least one EARTO member, which is higher than in FP7 with EARTO members' projects receiving 36,4% of FP7 EC funding (figure 8).

When looking pillar per pillar for H2020:

- The involvement of EARTO members in Industrial Leadership is important: 13,3% of the EC funding available for the Industrial Leadership Pillar was given to EARTO members, while EARTO members represent only 1,6% of the total number of beneficiaries in this pillar. Besides, almost 60% of the EC funding available for this Pillar was given to projects involving EARTO members, which represents a total EC contribution of €2,2bn.

- EARTO members are also very involved in Societal Challenge: 7,5% of the EC funding available for the Societal Challenges Pillar was given to EARTO members, while EARTO members represent only 1,3% of the total number of beneficiaries in this pillar. Besides, 49% of the EC funding available for this Societal Challenges Pillar was given to projects involving EARTO members, which represents a total EC contribution of €2,9bn.
- Finally, EARTO members received 4,2% of the EC funding dedicated to Excellent Science, and the projects in which they are involved received a total of 20% of the available funding for this pillar.

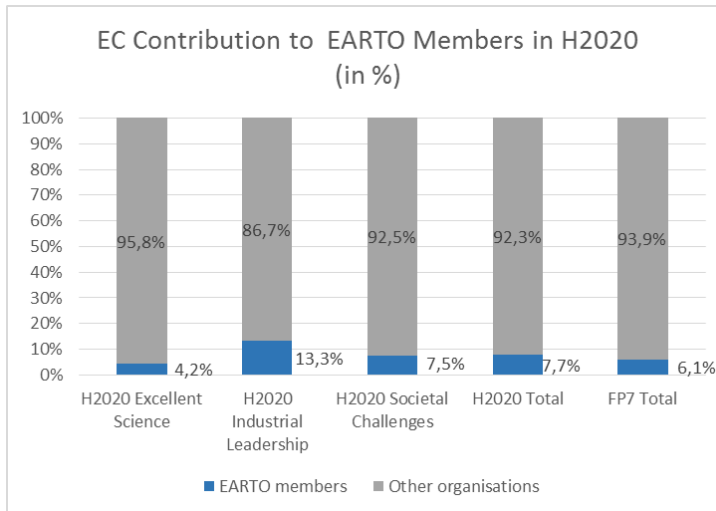


Figure 7

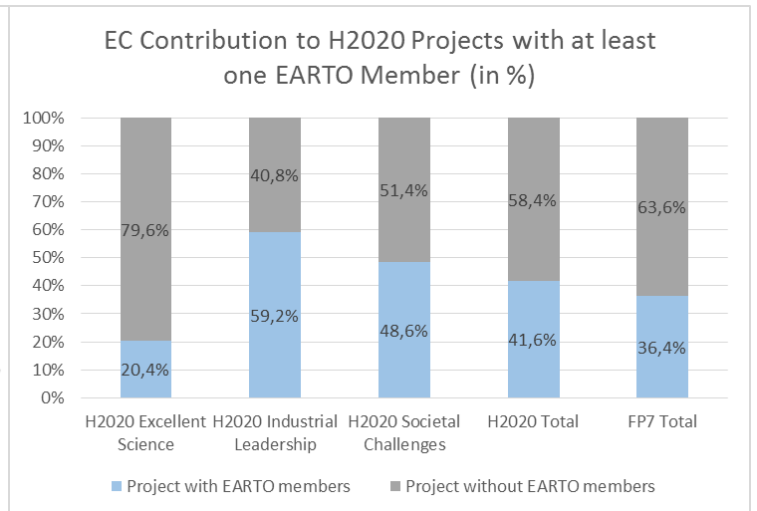


Figure 8

2. EARTO members taking responsibility in H2020

It is also interesting to analyze the average EC contribution received per partner in a project, when comparing the EC contribution and the number of participations.

2.1. High average EC contribution per EARTO members' participation in H2020 projects

On average and in general, each EARTO member receive €570k EC contribution on average per project in H2020, which is above the total H2020 average EC contribution of €410k per participation. This trend was already the same in FP7, even though the gap increased quite a lot in H2020, with each EARTO members receiving €405k on average per project in FP7, with a total average EC contribution per partner of €336k (figure 9).

When looking pillar per pillar for H2020 (figure 9):

- In general, the most interesting projects in terms of average EC funding received per partner are those from the Excellence Science pillar with an average of €506k EC funding per partner, followed by the Societal Challenges projects with €366k average EC funding per partner, and then Industrial leadership with €357k EC funding per partner on average.
- The average EC funding received by each EARTO members follows a different pattern, the most interesting projects in terms of EC funding received per EARTO member being the projects funded under the Industrial Leadership pillar with €599k EC funding per EARTO member's participation, followed by Excellent Science projects with €554k and Societal Challenges with €516k EC funding per EARTO member's participation.

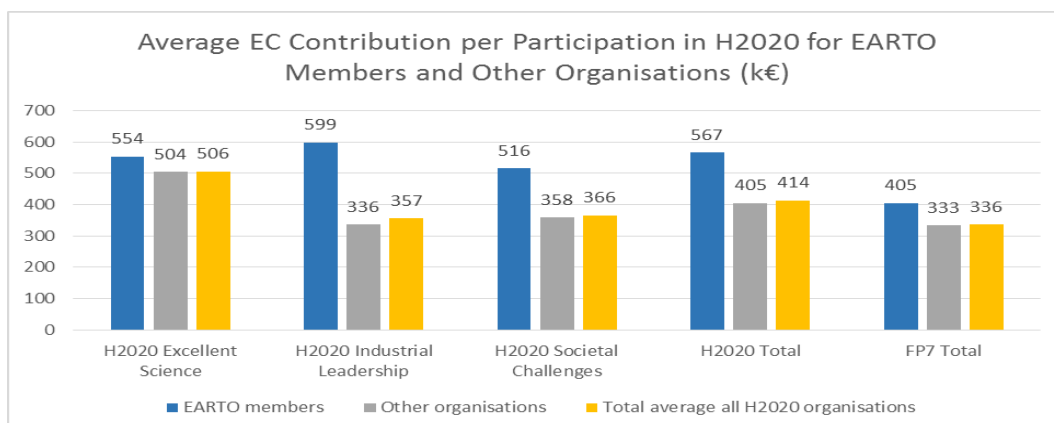


Figure 9

2.2. EARTO members coordinating H2020 projects

EARTO members coordinated 453 H2020 projects so far (figure 10). For a comparison, this number reached 1320 for FP7 projects.

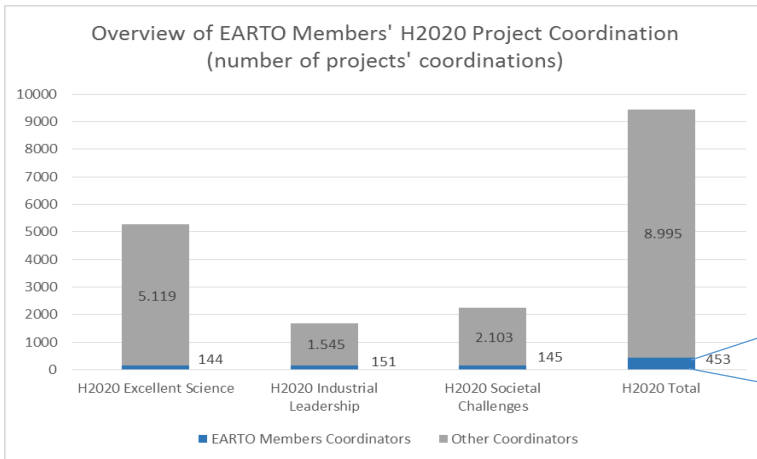


Figure 10

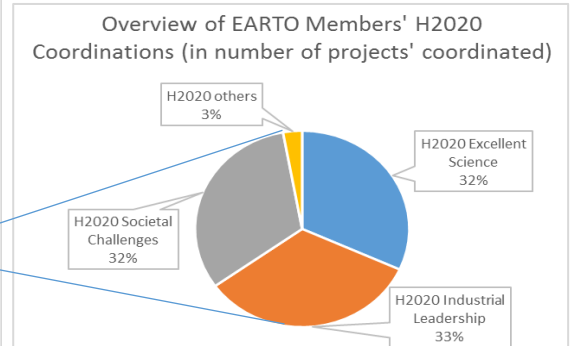


Figure 11

When looking pillar per pillar for H2020:

- The number of EARTO members' coordination of projects is quite balanced among the pillars, with 33% of EARTO members' coordinations under Industrial Leadership, which represents 151 coordinations, 32% under Societal Challenges which represents 145 coordinations and 32% under Excellent Science, which represents 144 coordinations (figures 10 & 11).
- However, it is worth noting that the high number of project coordinations obtained for Excellence Science Pillar can mostly be explained by the fact that in projects such as ERC, coordination is by default.

In total, EARTO members coordinated 4,8% of all H2020 projects so far (figure 12). This is a bit less than for FP7 in which EARTO members coordinated 5,2% of all projects.

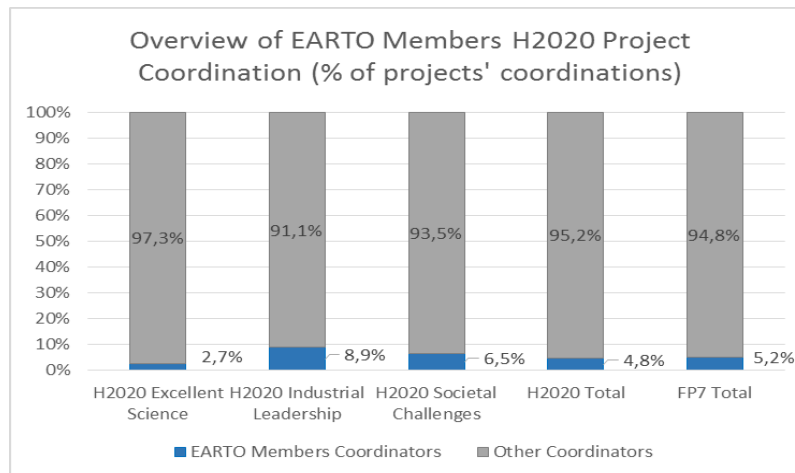


Figure 12

When looking pillar per pillar for H2020 (figure 12):

- The involvement of EARTO members in Industrial Leadership is noteworthy, with EARTO members coordinating 8,9% of the projects in this pillar II.
- Similarly, EARTO members coordinated 6,5% of the projects under Pillar III, Societal Challenges.

2.3. EARTO members' high coordination rate

EARTO members coordinate on average 1/3 of the H2020 projects in which they participated so far, which is quite constant in the different pillars. This H2020 coordination rate is a bit higher from the one of FP7 (figure 14).

When looking pillar per pillar for H2020 (figures 13 & 14):

- The highest coordination rate was reached for pillar I Excellence Science with 43,1% (144 coordinations out of 334 projects). This is certainly mainly due to the fact that the projects in this pillar tend to be smaller in size, with the ERC grants involving only one partner – which is automatically coordinator.

- EARTO members coordinated 32,8% of their projects in Pillar II – Industrial Challenges with 151 coordinations out of 460 projects,
- Besides, EARTO members coordinated 26,6% of their projects in Pillar III – Societal Challenges with 145 coordinations out of 545 projects.

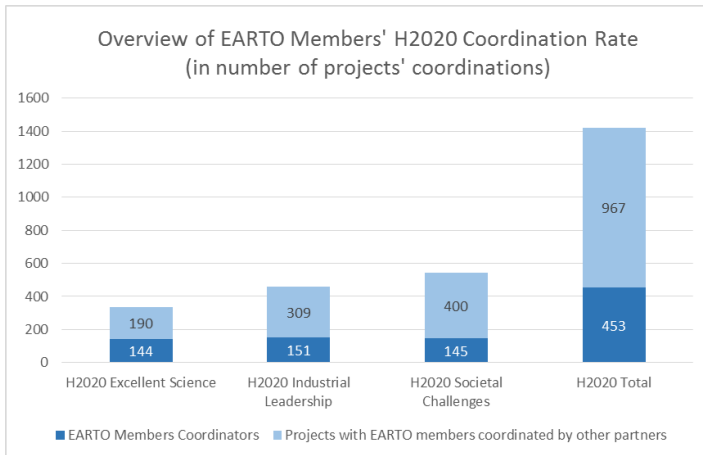


Figure 13

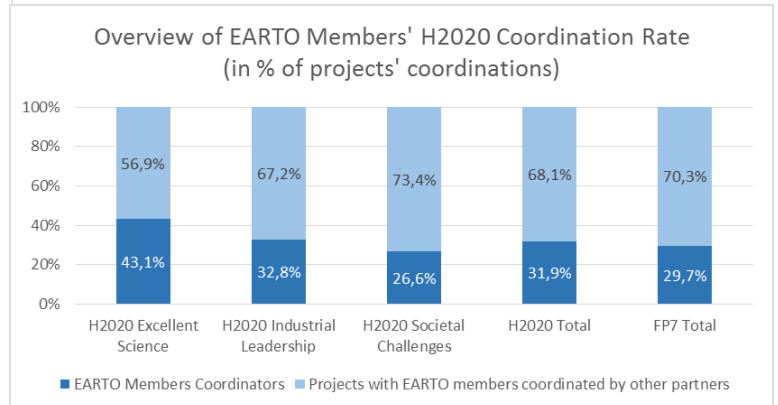


Figure 14

2.4. EARTO members receiving high share of EC contribution to coordinators

4,8% of all H2020 projects so far are coordinated by EARTO members and EARTO members received almost 6% of the total EC contribution dedicated to coordinators in H2020, which is quite close to what EARTO coordinators received in FP7 (figure 15). In other words, EARTO members tend to coordinate large multi-stakeholders H2020 projects, which gives them an important responsibility as coordinators of those projects and therefore a higher EC contribution.

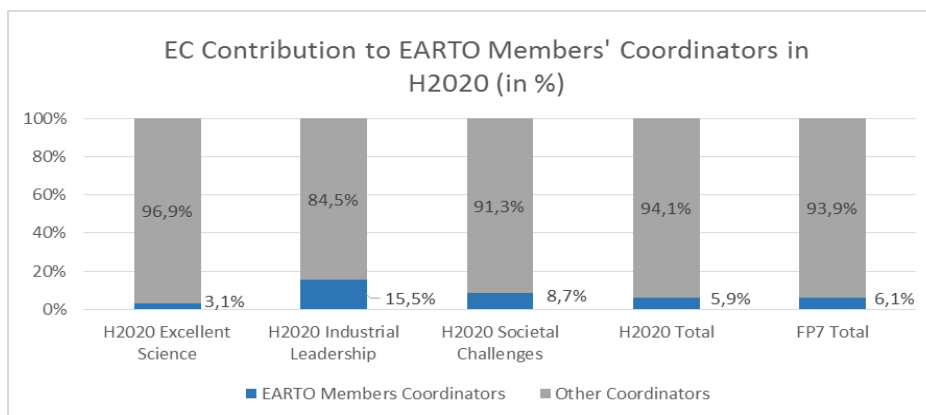


Figure 15

When looking pillar per pillar for H2020:

- EARTO coordinators received 15,5% of the total EC contribution to coordinators in Industrial Leadership.
- EARTO coordinators received 8,7% of the total EC contribution to coordinators in Societal Challenges (figure 15).
- This is linked to the previous finding that EARTO members are in general involved in the largest H2020 projects.

3. EARTO members involved in H2020 large multi-stakeholders collaborative projects

3.1. High average EC contribution per project with EARTO members involved

When comparing the number of projects so far and the EC contribution spent, we can analyze the average EC contribution per project.

The H2020 projects with EARTO members receive around €4,8m EC funding on average, which is much higher than the total average for H2020 of €1,7m EC funding per project (figure 16). This was already the case in FP7, even though the average size of the projects with EARTO members involved even increased from €3,7m in FP7 to €4,8m in H2020. That is to say that EARTO members tend to participate to even bigger projects in terms of funding.

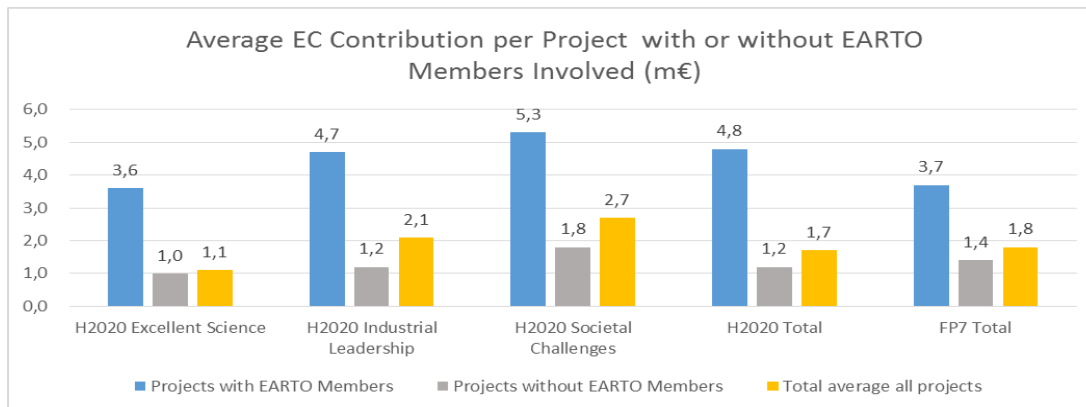


Figure 16

When looking pillar per pillar for H2020:

- In general the biggest projects in terms of EC funding are those from the Societal Challenges pillar with an average of €2,7m EC funding per project, followed by the Industrial Leadership projects with €2,1m average EC funding, and then Excellent Science with €1,1m.
- The size of the projects with EARTO members participating follows the same pattern, the biggest ones being the projects funded under the Societal Challenges pillar with €5,3m EC funding per project, followed by Industrial Leadership projects with €4,7m and Excellent Science with €3,6m per project.
- In all pillars, the projects with EARTO members involved receive on average more EC funding than the projects without EARTO members.

3.2. High average number of partners per project with EARTO members involved

It is also interesting to analyze the average number of partners per project. The H2020 projects with EARTO members count 12 partners per project on average, whereas the total H2020 average is 3 partners per project. This trend was the same in FP7 (figure 17).

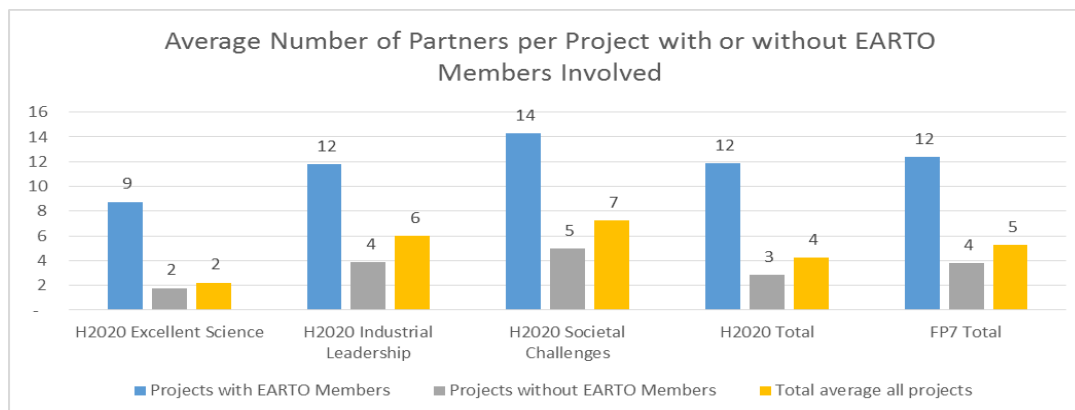


Figure 17

When looking pillar per pillar for H2020, figures demonstrate EARTO members' strength in organizing large multi-stakeholders collaborative research projects:

- In general the biggest projects in terms of number of partners are those from the Societal Challenges pillar with an average of 7 partners per project, followed by the Industrial Leadership projects with 6 partners, and then Excellent Science with 2 partners on average.
- The size of the projects with EARTO members participating follow the same pattern, the largest ones being the projects funded under the Societal Challenges pillar with 14 partners per project, while Industrial Leadership counts 12 partners per project and Excellent Science projects count 9 partners on average.

4. EARTO members fostering industry participation in H2020

Participation of EARTO Members in H2020 is positively correlated to the involvement of industrial partners in such EU funded projects. The average industrial involvement in H2020 projects increases to 31.2% when EARTO members are involved in the project from 25,7% when they are not part of the consortium (figures 18 & 19). This share increases even to 33,2% when considering only the 10 largest European RTOs. This shows that EARTO Members' participation in H2020 is positively correlated with the involvement of industrial partners in such EU funded projects.

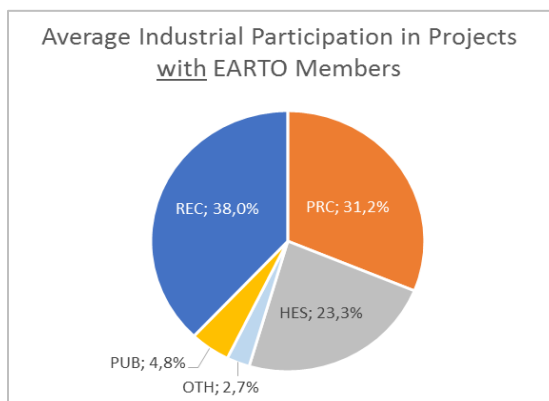


Figure 18

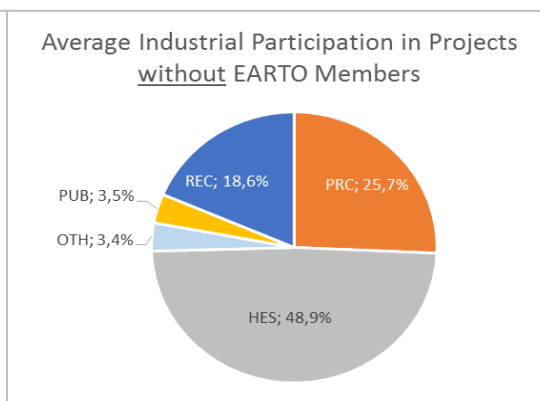


Figure 19

HES: Higher or Secondary Education
OTH: Others
PRC: Private for Profit
PUB: Public body
REC: Research Organisation

5. EARTO members strongly contributing to the Industrial Leadership pillar

EARTO members are heavily contributing to H2020 Industrial Leadership Pillar with 8 of the top 10 participants in terms of EC contribution being EARTO members (table 1), while there are in total 5556 beneficiaries in this pillar. It is also important to note that the top 7 organisations participating in Industrial Leadership pillar are all EARTO members. In addition, EARTO members are taking strong responsibility in H2020 Industrial Leadership Pillar with 7 of the top 10 coordinators in terms of number of projects coordinated being EARTO members, while many other EARTO members are not far behind (table 2).

Top 10 Participants in Industrial Leadership pillar in terms of EC contribution

Rank	Organisation	EARTO Member
1	Fraunhofer	Yes
2	CEA	Yes
3	IMEC	Yes
4	HELMHOLTZ	Yes
5	Tecnalia	Yes
6	VTT	Yes
7	TNO	Yes
8	CNRS	No
9	ASML NETHERLANDS B.V.	No
10	SINTEF	Yes

Table 1

Top 10 Coordinators in Industrial Leadership pillar in terms of number of coordinations

Rank	Organisation	EARTO Member
1	Fraunhofer	Yes
2	CEA	Yes
3	HELMHOLTZ	Yes
4	SINTEF	Yes
5	FORTH	No
6	IMEC	Yes
7	Tecnalia	Yes
8	VTT	Yes
9	ATOS SPAIN SA	No
10	CERTH/ISFTA	No

Table 2

6. EARTO members actively contributing to Societal Challenges Pillar

EARTO members are heavily contributing to H2020 Societal Challenges Pillar with 6 of the top 20 participants in terms of EC contribution being EARTO members (table 2), while there are in total 8425 participants in this programmes.

Top 20 Participants in Societal Challenges pillar in terms of EC contribution

Rank	Organisation	EARTO Member
1	HELMHOLTZ	Yes
2	Fraunhofer	Yes
3	IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY & MEDICINE	No
4	UNIVERSITY COLLEGE LONDON	No
5	CNRS	No
6	CEA	Yes
7	BORREGAARD AS	No
8	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	No
9	SIEMENS AKTIENGESELLSCHAFT	No
10	INSERM	No
11	Tecnalia	Yes
12	Clariant Produkte (Deutschland) GmbH	No
13	CNRS	No
14	TECHNISCHE UNIVERSITEIT DELFT	No
15	TNO	Yes
16	SINTEF	Yes
17	KATHOLIEKE UNIVERSITEIT LEUVEN	No
18	KAROLINSKA INSTITUTET	No
19	UNIVERSITY OF OXFORD	No
20	DANMARKS TEKNISKE UNIVERSITET	No

Table 3

EARTO - European Association of Research and Technology Organisations is a non-profit international association established in Brussels, where it maintains a permanent secretariat. The Association represents the interests of about 350 Research and Technology Organisations (RTOs) from across the European Union and "FP-associated" countries.

EARTO Vision: a European research and innovation system without borders in which RTOs occupy nodal positions and possess the necessary resources and independence to make a major contribution to a competitive European economy and high quality of life through beneficial cooperation with all stakeholders.

EARTO Mission: to promote and defend the interests of RTOs in Europe by reinforcing their profile and position as a key player in the minds of EU decision-makers and by seeking to ensure that European R&D and innovation programmes are best attuned to their interests; to provide added-value services to EARTO members to help them to improve their operational practices and business performance as well as to provide them with information and advice to help them make the best use of European R&D and innovation programme funding opportunities.