Introducing Horizon 2020

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Intro

- Personal Background

  - Over 20 years at European Commission in DG Research and Innovation

  - Responsible for SSH and Programme Evaluation

  - Retired since beginning of last year

- Views expressed are obviously only engaging myself

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Roadmap

- **Characteristics of EU Framework Programmes**
  - Basic Features, FP7 Analysis, ...

- **Horizon 2020**
  - Context, Concept, Novelties ...

- **Looking ahead**
  - New developments, basic advise ...

EU Framework Programmes Characteristics

- Project funding only

- True common pot – no national quota

- Competitive process with annual calls and peer review proposal evaluation

- Main focus on collaborative projects with partners from several countries

- Open to academia and industry alike

- Open to the world, not restricted to Europe

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EU Framework Programmes FP7 Figures 2007 -2013

136.000   Applications

601.000   Participants in applications received

25.000   Projects funded

130.000   Participants in projects funded

36% Universities

29% Industry (17% SME)

23% Research Organisation

41.7   Billion € EU funding

170   Countries participating

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FP7 Top Universities

HES rank	Overall rank	Organisation	Country	Participations	EU Financial Contribution
1	4	THE UNIVERSITY OF CAMBRIDGE	UK	737	424.033.731,50
2	5	THE UNIVERSITY OF OXFORD	UK	719	437.211.509,18
3	9	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	UK	657	325.246.663,64
4	10	UNIVERSITY COLLEGE LONDON	UK	610	352.748.161,54
5	11	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH	562	336.886.752,92
6	12	KATHOLIEKE UNIVERSITEIT LEUVEN	BE	545	263.002.585,14
7	13	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH	508	304.732.532,76
8	18	DANMARKS TEKNISKE UNIVERSITET	DK	409	186.622.061,55
9	19	TECHNISCHE UNIVERSITEIT DELFT	NL	406	195.158.867,07
10	20	THE UNIVERSITY OF EDINBURGH	UK	405	225.972.665,75
11	21	KOBENHAVNS UNIVERSITET	DK	397	191.354.640,99
12	22	THE UNIVERSITY OF MANCHESTER	UK	385	176.684.308,77
13	25	KARLSRUHER INSTITUT FUER TECHNOLOGIE	DE	340	128.151.957,90
14	26	KAROLINSKA INSTITUTET	SE	329	197.864.079,27
15	27	UNIVERSITY OF SOUTHAMPTON	UK	318	125.577.946,05
16	28	LUNDS UNIVERSITET	SE	317	152.515.675,18
17	29	KUNGLIGA TEKNISKA HOEGSKOLAN	SE	315	142.814.589,66
18	31	THE UNIVERSITY OF BIRMINGHAM	UK	309	126.917.898,98
19	32	UNIVERSITY OF BRISTOL	UK	306	132.896.106,02
20	33	THE UNIVERSITY OF SHEFFIELD	UK	303	142.125.910,37

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FP7 Top Research Org.

REC Rank	Overall rank	Organisation	Country	Partici-pations	EU Financial Contribution
1	1	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR	1.524	793.225.130,05
2	2	FRAUNHOFER-GESELLSCHAFT	DE	1.228	581.811.909,66
3	3	COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR	745	422.915.212,07
4	6	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES	701	259.532.907,43
5	7	CONSIGLIO NAZIONALE DELLE RICERCHE	IT	696	231.028.794,70
6	8	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE	665	412.347.025,81
7	14	TEKNOLOGIAN TUTKIMUSKESKUS VTT	FI	471	194.828.078,17
8	15	DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV	DE	430	191.188.192,08
9	16	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK - TNO	NL	429	187.829.231,70
10	17	INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE	FR	423	299.026.799,42
11	23	FUNDACION TECNALIA RESEARCH & INNOVATION	ES	374	113.290.733,95
12	24	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	EU	363	104.230.127,90
13	30	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	NL	310	112.320.986,92
14	37	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	FR	278	127.758.500,03
15	40	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	EL	268	93.818.844,28
16	45	ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	EL	257	74.712.986,97
17	60	INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE	FR	229	117.380.019,25
18	73	STIFTELSEN SINTEF	NO	204	117.072.647,46
19	76	CENTRO RICERCHE FIAT SCPA	IT	196	72.721.041,55
20	80	FORSCHUNGSZENTRUM JUELICH GMBH	DE	184	81.470.468,56

FP7 Top Industry

PRC Rank	Overall rank	Organisation	Country	Partici-pations	EU Financial Contribution
1	118	ATOS SPAIN SA	ES	141	51.948.726,85
2	127	SIEMENS AKTIENGESELLSCHAFT	DE	132	56.889.078,96
3	149	THALES COMMUNICATIONS & SECURITY SAS	FR	117	60.352.385,21
4	159	D'APPOLONIA SPA	IT	111	31.175.942,48
5	162	TELEFONICA INVESTIGACION Y DESARROLLO SA	ES	109	52.620.460,39
6	164	STMICROELECTRONICS SRL	IT	109	42.701.588,98
7	165	AIRBUS DEFENCE AND SPACE GMBH	DE	109	39.809.035,94
8	173	ACCIONA INFRAESTRUCTURAS S.A.	ES	107	30.563.210,26
9	180	PHILIPS ELECTRONICS NEDERLAND B.V.	NL	103	51.724.950,41
10	191	SELEX ES SPA	IT	98	30.492.717,32
11	207	SAP AG	DE	91	76.749.414,50
12	216	VOLVO TECHNOLOGY AB	SE	85	34.126.155,59
13	239	INFINEON TECHNOLOGIES AG	DE	77	38.167.485,80
14	269	ELECTRICITE DE FRANCE S.A.	FR	70	17.394.457,08
15	276	THALES SA	FR	68	24.964.427,76
16	278	IBM RESEARCH GMBH	CH	67	41.248.295,85
17	284	ORANGE SA	FR	66	24.004.339,00
18	298	ENGINEERING - INGEGNERIA INFORMATICA SPA	IT	61	31.344.180,30
19	301	ARTTIC	FR	61	25.096.870,25
20	314	IBM ISRAEL - SCIENCE AND TECHNOLOGY LTD	IL	58	39.147.609,23

Horizon 2020 Basics

– A single programme bringing together three separate programmes/initiatives (FP/CIP/EIT)

– Coupling research and innovation – from research to retail, all forms of innovation

– Focus on challenges facing EU societies, e.g. health, clean energy and transport

– Simplified access, for all companies, universities, institutes in all EU countries and beyond

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Horizon 2020 Novelties

- Integration of the innovation dimension
- Additional emphasis on Public-Private-Partnerships and Public-Public-Partnerships
- New approaches to SME support
- Massive increase in financial instruments (loan guarantees for Mid-Caps)
- Even greater variety of governance modes (e.g. Knowledge and Innovation Communities for the European Institute for Technology and Innovation)

Horizon 2020 Themes

- Horizon 2020 Themes look at first glance strikingly similar to the FP7 ones …

But:

- More explicit and more substantial emphasis on innovation aspects

- Call texts stipulate the need to show the application potential of project ideas

- In light of the political context, Horizon 2020 aims at supporting the creation of jobs and growth

Horizon 2020 Project Design

- Horizon 2020 offers support to the full spectrum of activities – from basic research to prototypes
- Essential to position correctly the key competence of a team and the key added value of a project
- Project design should correspond to call priorities and evaluation criteria
- Possible new avenues
    - Stronger links with industry and SMEs
    - Better involvement of partners from EU-13
    - …

Horizon 2020 Partnerships

- New „rules of the game" require new thinking about possible partnerships

- Complementary skills – partners should bring in different competencies and take over different roles and functions

- Diversity management – need to handle far more diversified consortia

- Stronger integration of partners from industry and SMEs in the full project design

- …

Looking ahead
DG RTD as "Policy DG"

- Major reorganisation under way in DG RTD
- First wave became effective as of January 2014
- New focus on becoming a "Policy DG"
  - Shaping European Research and Innovation Policy
  - Provide scientific evidence to the wider political debate
  - …
- New tasks, new skills, less people …

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Looking ahead
"New Management Modes"

- Most parts of Project Management taken over by

  – Executive Agencies (ERCEA, REA, EACI, …)

  – Joint Undertakings (PPP)

- 75% of Horizon 2020 budget to be managed outside the "classical" DGs

- New tasks, new skills, more people …

Looking ahead
Budget Debates

- New Commission launched flagship initiative EFSI ("European Fund for Strategic Investments")

- For 2016, budget of 2bn € to be found across existing "non mandatory activities"

- Horizon 2020 to be severely hit (- 500 million €)

- Ongoing discussions with Council and EP

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Looking ahead
Lessons from First Calls

- Average success rate down from 20% to 16%

- Participation from non-EU countries down (Switzerland; new rules for BRIC)

- No significant "catching-up" of EU-13 (Central and Eastern Europe)

- Logistics worked well (Participants Portal)

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Looking ahead
Basic advise

- Does the project idea really fit to the call text?
- Is the project design in itself convincing – and does it correspond to the "political" requirements?
- Do all partners have a meaningful role?
- Cover all aspects of the call and the evaluation criteria in your proposal …
- Take advantage of advise and support structures …
- Tackle essential issues sooner rather than later …
- Keep it simple (language, structure, …)

It's much easier to provide advise than to do it yourself .

Thanks for your attention

Questions?

Good luck!

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