

# Introducing Horizon 2020

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Dr. Peter Fisch

# Intro

- Personal Background
  - Over 20 years at European Commission in DG Research and Innovation
  - Responsible for SSH and Programme Evaluation
  - Retired since end of last year
- Views expressed are only engaging myself

# Roadmap

- **Characteristics of EU Framework Programmes**
  - Basic Features, FP7 Analysis, ...
- **Horizon 2020**
  - Context, Concept, Novelty ...
- **Looking ahead**
  - Essential advice, new developments, ...

# Characteristics of EU Framework Programmes

- 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

# FP7 in Key Figures

Summer 2013

79.000	Applications
386.000	Participants in applications received
16.000	Projects funded
85.000	Participants in projects funded

*38% Universities*

*28% Industry (17% SME)*

*26% Research Organisation*

25.3 Billion € EU funding

169 Countries participating

# FP7 Top Universities

HES RANK	OVERALL RANK	INSTITUTION NAME	COUNTRY
1	6	UNIVERSITY OF CAMBRIDGE	UK
2	8	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	UK
3	9	UNIVERSITY OF OXFORD	UK
4	10	EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH	CH
5	11	KATHOLIEKE UNIVERSITEIT LEUVEN	BE
6	12	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH
7	13	UNIVERSITY COLLEGE LONDON	UK
8	17	KARLSRUHER INSTITUT FUER TECHNOLOGIE	DE
9	18	KAROLINSKA INSTITUTET	SE
9	18	DANMARKS TEKNISKE UNIVERSITET	DK
11	21	UNIVERSITY OF EDINBURGH	UK
12	22	LUNDS UNIVERSITET	SE
13	23	UNIVERSITY OF MANCHESTER	UK
14	24	TECHNISCHE UNIVERSITEIT DELFT	NL
15	26	KØBENHAVNS UNIVERSITET	DK
16	27	KUNGLIGA TEKNISKA HOEGSKOLAN	SE
17	31	UNIVERSITY OF SOUTHAMPTON	UK
18	32	VERENIGING VU-WINDESHEIM	NL
19	33	CHALMERS TEKNISKA HOEGSKOLA	SE
20	34	UNIVERSITEIT GENT	BE

# FP7 Top Research Org.

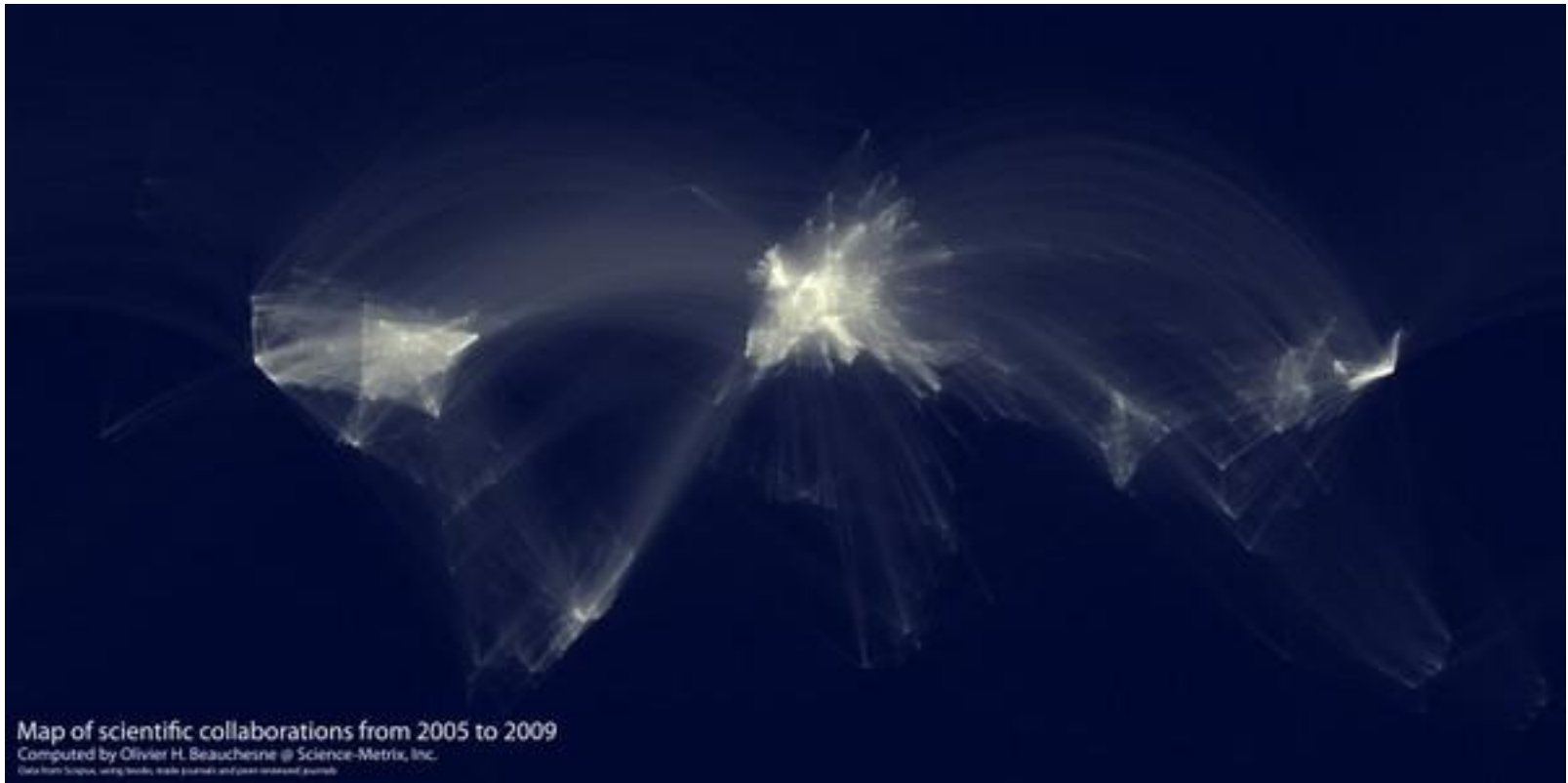
REC RANK	OVERALL RANK	INSTITUTION NAME	COUNTRY
1	1	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR
2	2	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG	DE
3	3	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR
4	4	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN	DE
4	4	CONSIGLIO NAZIONALE DELLE RICERCHE	IT
6	6	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES
7	14	INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE	FR
8	15	TEKNOLOGIAN TUTKIMUSKESKUS VTT	FI
9	16	DEUTSCHES ZENTRUM FUER LUFT- UND RAUMFAHRT	DE
10	18	JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	EU
11	25	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK	NL
12	28	FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS	EL
13	29	STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	NL
14	30	FUNDACION TECNALIA RESEARCH & INNOVATION	ES
15	36	INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE	FR
16	40	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	FR
17	48	INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM VZW	BE
18	70	MEDICAL RESEARCH COUNCIL	UK
18	70	CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS	EL
20	80	CENTRO RICERCHE FIAT SCPA	IT

# FP7 Top Industry

PRC RANK	OVERALL RANK	COMPANY NAME	COUNTRY	SME STATUS
1	99	TELEFONICA INVESTIGACION Y DESARROLLO SA	ES	N
2	112	SIEMENS AG	DE	N
3	127	SAP AG	DE	N
4	129	EADS DEUTSCHLAND GMBH	DE	N
5	134	ATOS ORIGIN SA	ES	N
6	138	PHILIPS ELECTRONICS NEDERLAND BV	NL	N
7	175	THALES COMMUNICATIONS SA	FR	N
8	185	D'APPOLONIA SPA	IT	N
9	199	STMICROELECTRONICS SRL	IT	N
10	208	ACCIONA INFRAESTRUCTURAS SA	ES	N
11	215	ELECTRICITE DE FRANCE SA	FR	N
11	215	FRANCE TELECOM SA	FR	N
13	249	VOLVO TECHNOLOGY AB	SE	N
14	258	AIRBUS OPERATIONS SAS	FR	N
15	266	INFINEON TECHNOLOGIES AG	DE	N
16	275	ELSAG DATAMAT SPA	IT	N
17	282	IBM ISRAEL - SCIENCE AND TECHNOLOGY LTD	IL	N
18	296	ALMA CONSULTING GROUP SAS	FR	N
18	296	CENTRE DE RECERCA I INVESTIGACIO DE CATALUNYA SA	ES	Y
20	311	ROBERT BOSCH GMBH	DE	N



# Global scientific collaborations



# 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

# 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 (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 ...

# Looking ahead

## "New Management Mode"

- Most parts of Project Management to be 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

## New Commission

- Newly elected European parliament
- New term for the European Commission
- New Commission President, new Commissioners
- Generally acknowledged “Need for a change” ...
  
- Possible impact on “Horizon 2020”:
  - New political priorities
  - Response to new challenges (Security?)
  - ...

# Looking ahead

## Horizon 2020 First Calls

- “Tsunami” of proposals?
- Increased size of projects?
- “Catching-up” of EU-13 (Central and Eastern Europe)?
- Increase in industry participation?
- First experiences with new modalities ...

# Looking ahead

## Basic advise

- Does the project idea really fit to the call text?
- Is the project design convincing – beyond all 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 and Good luck!**

**Dr. Peter Fisch**

**[mail@peter-fisch.eu](mailto:mail@peter-fisch.eu)**

**[peter-fisch.eu](http://peter-fisch.eu)**