



HORIZON 2020

Opportunities for Japan



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HORIZON 2020



EU-Japan: a Strategic Partnership in Science and Technology



A Strategic Partnership in S&T

"Summit leaders underlined the strategic importance of EU-Japan cooperation in science and technology in contributing to growth and competitiveness and in addressing shared societal challenges".

They welcomed the significant progress achieved together since the entry into force of the **EU-Japan S&T Agreement** between in key areas of mutual interest such as critical raw materials, aeronautics and ICT

They called for **further efforts to unlock the full potential of Japan-EU S&T cooperation and to promote greater collaboration**"

EU-Japan Summit November 2013



Some Excellent Successes

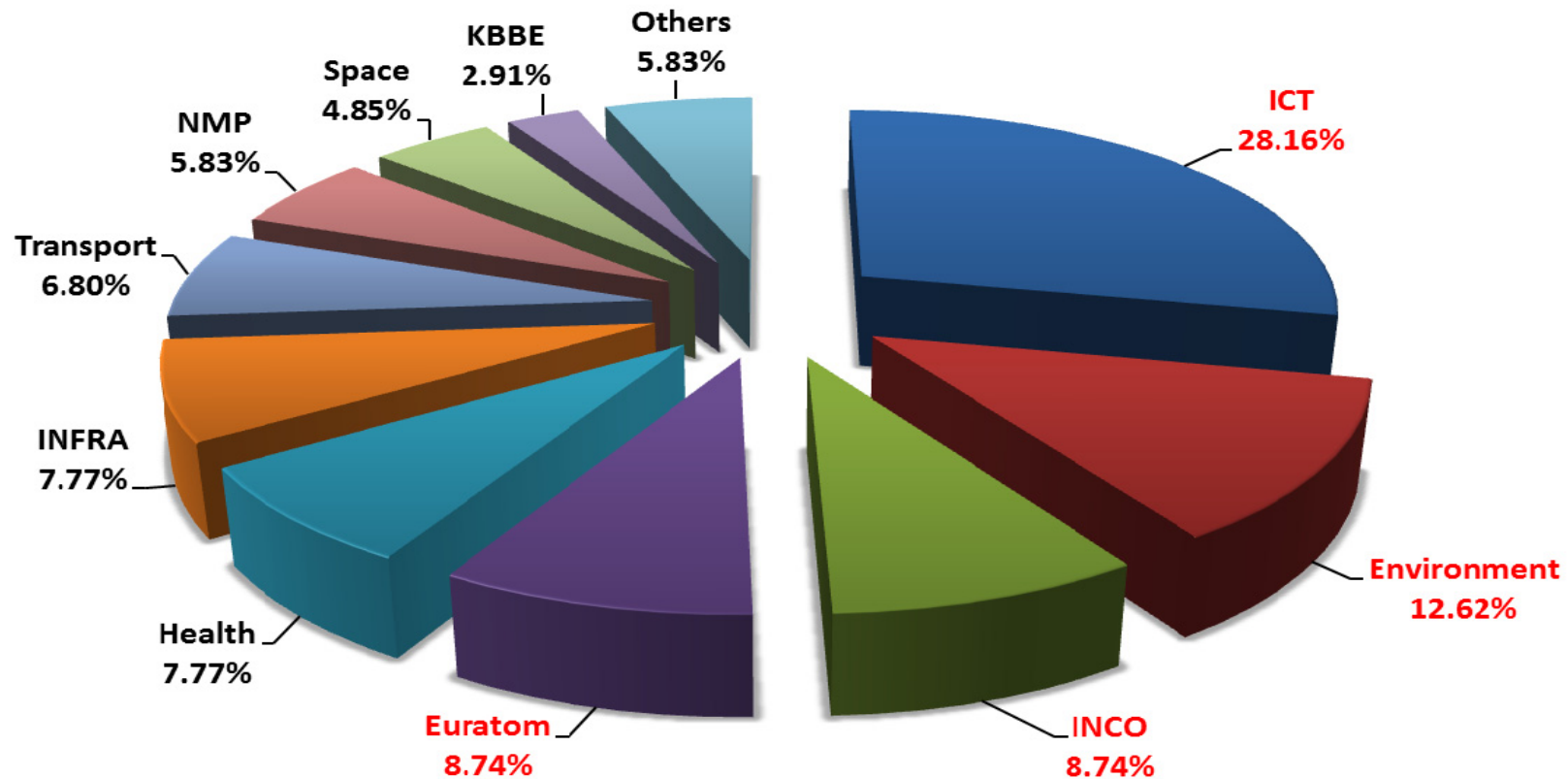
- ✓ ***103 "bottom up" participations by 50 different Japanese organisations in 79 FP7 projects***
- ✓ ***5 "top-down" jointly designed "Coordinated Calls" resulting in 17 projects (ICT, aeronautics, energy, critical raw materials)***
- ✓ ***Successful "support actions" e.g. CONCERT-JAPAN***



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'Bottom up' Participations

Participations from Japan Distribution by Thematic Areas



Research and
Innovation



'Top Down' 'Coordinated' Calls

2011 Energy (NEDO)

Project: NGCPV

(EU project cost: € 6,528,053)

2011 Manufacturing/New Materials (JST)

Projects: IRON-SEA, LEMSUPER, SUPER-IRON

(EU project cost: € 6,642,525)

2012 Aviation (METI)

Projects: HIKARI, JEDI ACE, SHEFAE (EU project cost: € 5,933,681)

2013 ICT (MIC)

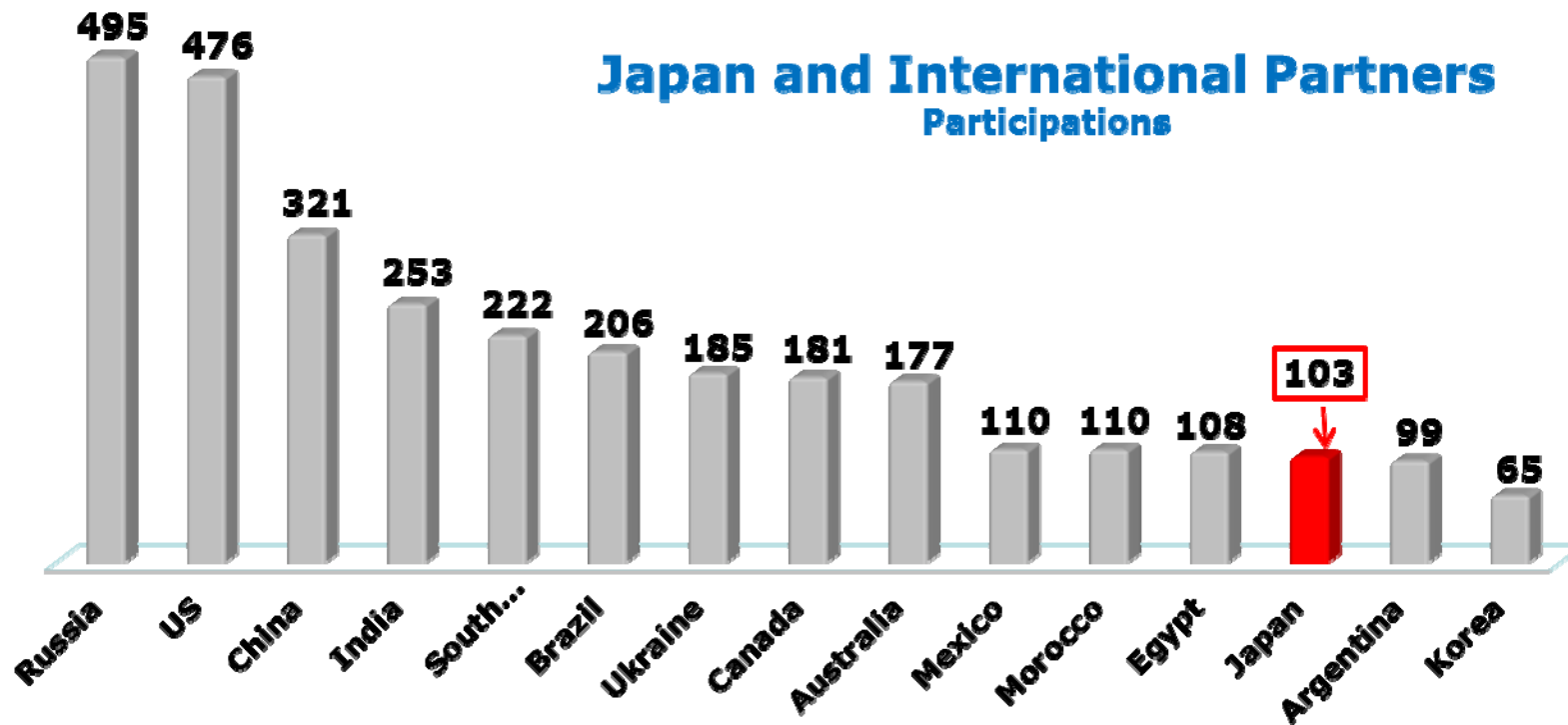
Projects: CLOUT, FELIX-EU, GREENICN, MIWEBA, NECOMA, STRAUSS

(EU project cost: € 12,759,124)

2013 Manufacturing/Critical raw Materials (JST)

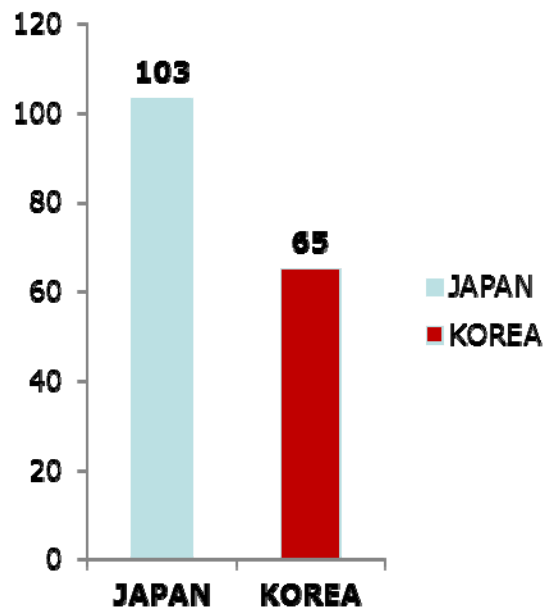
Projects: HARFIR, IRENA, NOVACAM (EU project cost: € 7,077,545) ⁶

But Unfulfilled Potential!

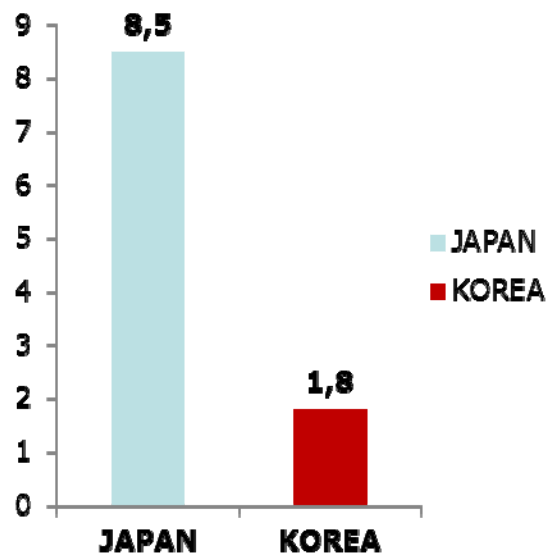


A Tale of Two Countries...

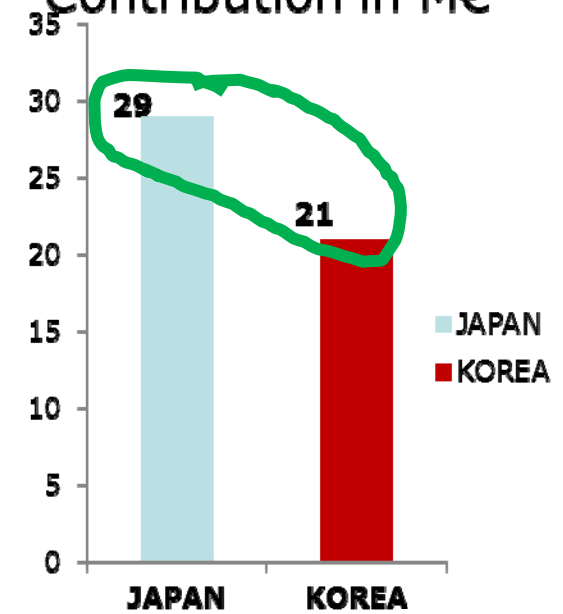
Nb of
Participations in
FP7



EC Contribution in
M€



International
Partner Own
Contribution in M€



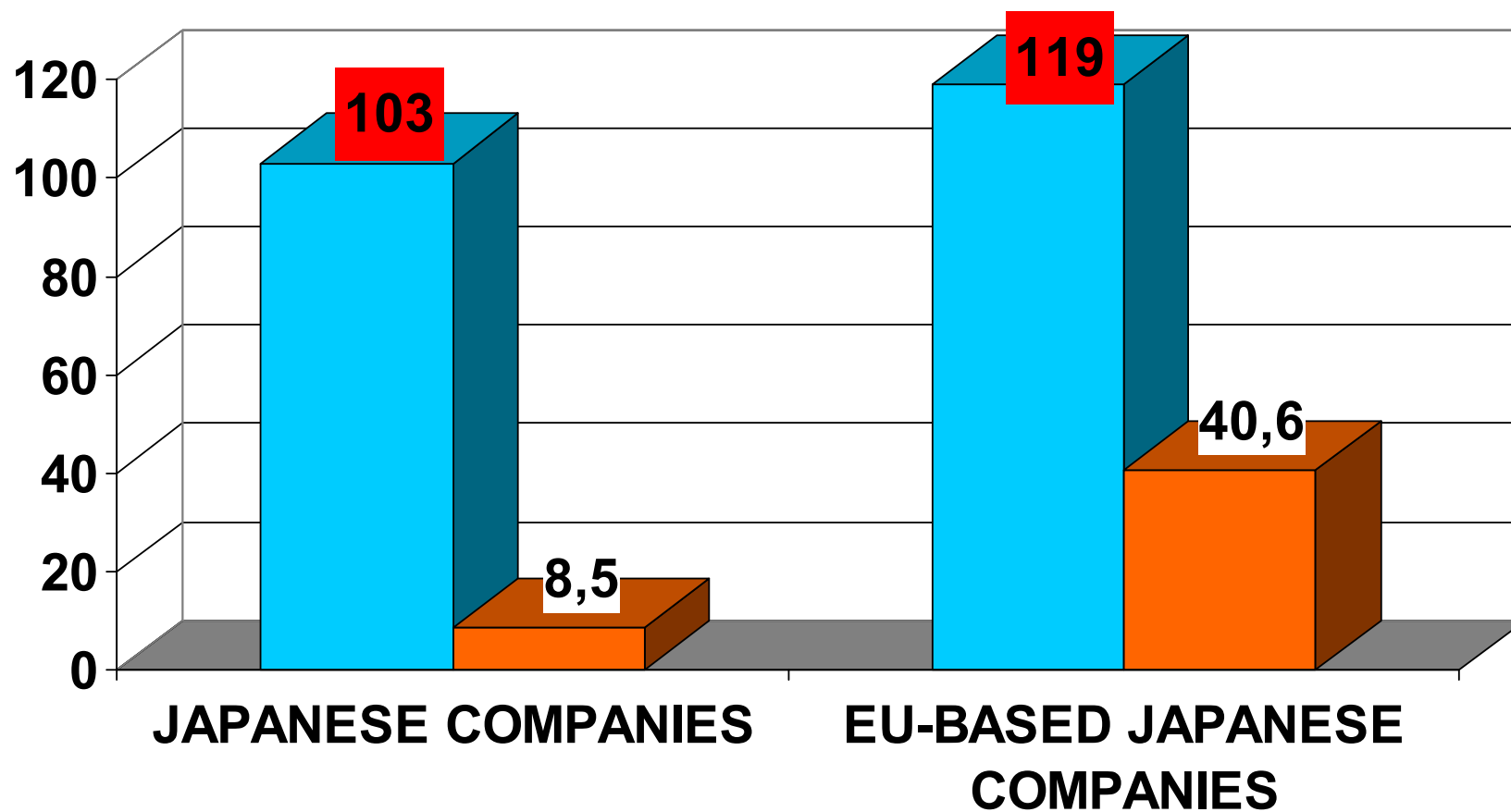
Questions?

- ✓ ***Why is overall Japanese participation in EU research programme so modest?***
- ✓ ***What can be done to improve participation of Japanese research entities (public and private) in the future?***
- ✓ ***What best approach? Top Down? Bottom Up?***
- ✓ ***What role for new NCP?***



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Full Picture: a Tale of 'Two Japan'?



■ Nb of Participations ■ EU Participation in M EUR

Research and
Innovation



Participant Legal Name	Coordinating Country	N° of Participations	EC Contribution
HITACHI AIR CONDITIONING EUROPE SAS	France	1	161.319
HITACHI EUROPE LIMITED	United Kingdom	11	2.758.823
HITACHI EUROPE SAS	France	8	1.803.320
HONDA R&D EUROPE (DEUTSCHLAND) GMBH	Germany	1	131.828
Honda Research Institute Europe GmbH	Germany	1	194.702
HORIBA JOBIN YVON S.A.S.	France	9	3.347.169
IHI CHARGING SYSTEMS INTERNATIONAL GMBH	Germany	1	101.315
IHI IONBOND AG	Switzerland	1	1.820.428
mitsubishi electric R&D centre Europe B.V.	Netherlands	4	1.433.413
NEC EUROPE LTD	United Kingdom	47	19.662.046
NEC TECHNOLOGIES (UK) LIMITED	United Kingdom	7	3.368.517
Nissan International SA	Switzerland	3	568.622
NISSAN MOTOR IBERICA SA	Spain	3	384.413
Nissan Motor Manufacturing (UK) Limited	United Kingdom	1	120.894
SHARP LABORATORIES OF EUROPE LTD	United Kingdom	1	397.299
TOPPAN PHOTOMASKS FRANCE SAS	France	1	85.437
TORAY CARBON FIBERS EUROPE SA	France	2	295.715
TOSHIBA RESEARCH EUROPE LIMITED	United Kingdom	10	2.875.796
TOSHIBA TRANSMISSION & DISTRIBUTION EUROPE SPA	Italy	1	217.913
Toyota Material Handling Europe AB	Sweden	1	349.760
TOYOTA MOTOR EUROPE	Belgium	5	541.365

Questions?

- ✓ ***How is participation in EU research programme an incentive for EU-based branches of Japanese companies?***
- ✓ ***Why is there such a contrast?***
- ✓ ***What messages can EU-based Japanese companies send to headquarters to reinforce future participation in Japan?***



Horizon 2020: New Opportunities for Japan – and Japanese Companies in Europe



Horizon 2020 in a Nutshell

- ✓ **A keystone of "Europe 2020" and "Innovation Union"**
- ✓ **The biggest Research- and Innovation-funding programme in the world: € 79 billion budget/ over 7 years**
- ✓ **The only area in the EU "Multiannual Financial Framework" 2014-2020 to increase (35% over FP7!)**
- ✓ **The most open programme in the World!**
- ✓ **International cooperation at its core**
- ✓ **'Challenge-based' ≠ 'discipline-based'**
- ✓ **Extends to innovation, new debt and equity instrument, new SME instrument, open access, etc.**
- ✓ **Faster, less red tape: simplification is key!**

Three Main Priorities





Priority 1. Excellent Science funding (€ million, 2014-2020)

<i>European Research Council (ERC)</i> Frontier research by the best individual teams	13 095
<i>Future and Emerging Technologies</i> Collaborative research to open new fields of innovation	2 696
<i>Marie Skłodowska-Curie actions (MSCA)</i> Opportunities for training and career development	6 162
<i>Research infrastructures (including e-infrastructure)</i> Ensuring access to world-class facilities	2 488



Priority 2. Industrial Leadership funding (€ million, 2014-2020)

<p><i>Leadership in enabling and industrial technologies (LEITs)</i> (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)</p>	13 557
<p><i>Access to risk finance</i> Leveraging private finance and venture capital for research and innovation</p>	2 842
<p><i>Innovation in SMEs</i> Fostering all forms of innovation in all types of SMEs</p>	616 + complemented by 20% of budget of 'Societal challenges' and ' <i>Access to risk finance</i> ' with strong SME focus



Priority 3. Societal Challenges funding

(€ million, 2014-2020)

Health, demographic change and wellbeing	7 472
Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the Bioeconomy	3 851
Secure, clean and efficient energy *	5 931
Smart, green and integrated transport	6 339
Climate action, environment, resource efficiency and raw materials	3 081
Inclusive, innovative and reflective societies	1 310
Secure societies	1 695
Science with and for society	462
Spreading excellence and widening participation	816

* Additional funding for nuclear safety and security from the Euratom Treaty activities



But Not Only About Money!

- ✓ **Value of EU programmes much more than cash value!**
- ✓ **Deep relationships, collaboration – goes on even when the money is gone!**
- ✓ **Working with the best brains in EU and internationally**
- ✓ **EU-based international companies (Japanese especially) have understood!**
- ✓ **Key role for industry – European Technology Platforms**



**Horizon 2020:
A Key Role for
International Cooperation**

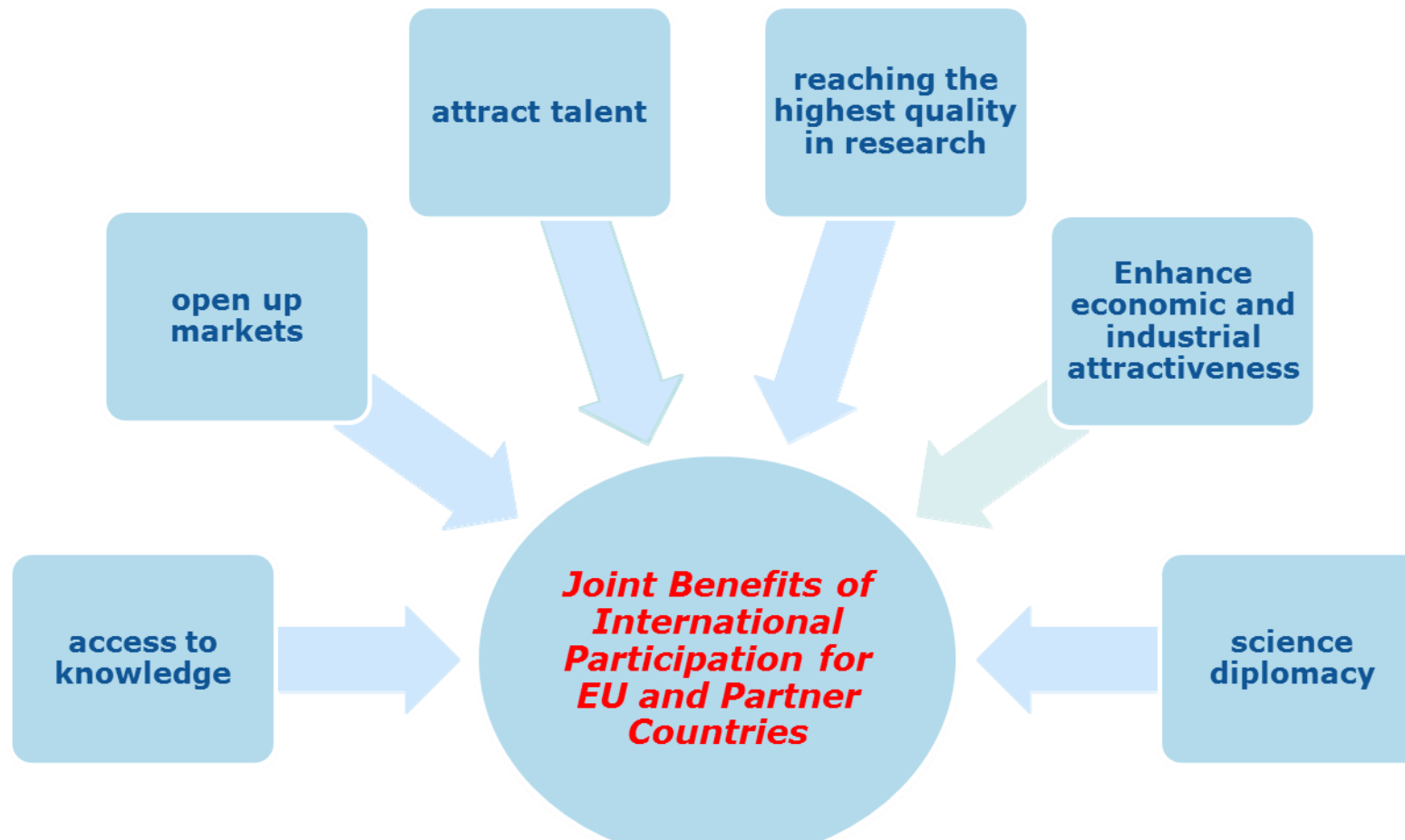


International Cooperation at H2020 Core

- ✓ **Cross-cutting approach: international cooperation activities permeates all Horizon 2020 ≠ specific 'silo'**
- ✓ **Rationale: international cooperation = key to address global challenges, to contribute to excellence and competitiveness, to support EU external policies**
- ✓ **Three complementary approaches:**
 1. **'General opening': the most open (and most competitive...) funding programme in the world**
 2. **Targeted activity: reinforced cooperation with key international partners**
 3. **Dedicated support measures (policy support projects, etc.)**

International Cooperation: a Win-Win

"International cooperation always brings benefits to all those involved" Mark Rutte, NL Prime Minister, 10/3/2014



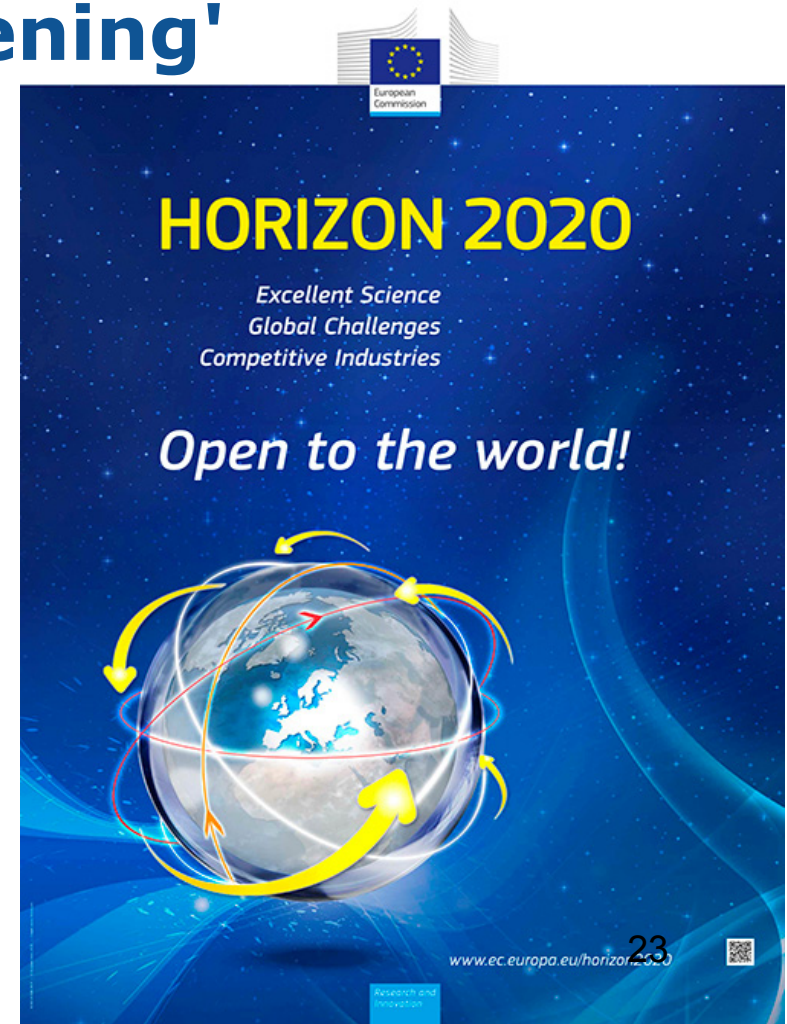
International Cooperation #1: 'General Opening'

Horizon 2020:

**Open for *all legal entities*
established in third countries and
for international organisations**

Only restrictions

- ✓ Entities under sanctions in specific countries
- ✓ If in WP (security, reciprocity reasons)





International Cooperation # 2: 'Targeted actions'

- ✓ **Areas for reinforced cooperation ('big ticket' actions) tailored to individual countries/regions**
- ✓ **Areas identified with criteria of common interest, mutual benefit**
- ✓ **"Top down" selection based on input from EU and third countries stakeholders (e.g. aeronautics industry) and international partners (bilateral Joint S&T Committees)**

Examples of 'Targeted Actions'

Joint Calls

- Used for specific actions (e.g. identified through Joint S&T Committees)
- One call, one evaluation, two contracts

Synchronized / Coordinated calls

- Used for specific actions (e.g. identified through Joint S&T Committees)
- Paired calls, linked evaluations, two separate contracts

Programme-level coordination (multilateral)

- Funding Agencies share and agree priorities for implementing through their own programmes



Horizon 2020: What's NEW?



SIMPLER!

A grayscale image showing a path of smooth, rounded stepping stones leading from the foreground into the distance across a body of water. The stones are arranged in a slightly curved line, and their reflections are visible in the rippling water. The text is overlaid on the stones in a clean, white, sans-serif font.

**Simpler
Implementaion**

**Simpler
Control and Risk
Strategies**

**Simpler
Funding Rules**

**Simpler
Structure**



Keeping it Simple!

- ✓ **Simplified Structure**
- ✓ **Architecture: Integration of FP7, CIP, EIT in *one single programme***
- ✓ **Fewer legal acts: before 12 legal acts, now one!**
- ✓ **Coherent set of rules applicable to all actions**
- ✓ **Common toolkit of funding schemes**

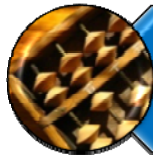
- ✓ **Simplified Control and Risk Strategies**
- ✓ **Extension of the guarantee fund to all actions under H2020**
- ✓ **Reduction of ex-ante checks:**
- ✓ **Ex-post audit strategy: reduced audit burden; focus on risk-based audits and fraud detection; expectation: max. 7% audited**

- ✓ **Simplified implementation**
- ✓ **Single IT platform for all EU research and innovation funding**
- ✓ **All electronic /No paper!!!!**
- ✓ **Overhaul of practical processes and requirements for proposal submission, negotiation, reporting etc.**
- ✓ **Simplified guidance documents, support services**

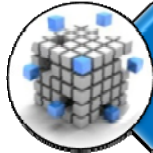
Result: Keeping it (Relatively) Zen!



major simplification of legal entity validation



simpler budgeting



more flexibility in ongoing projects



shorter time-to-grant

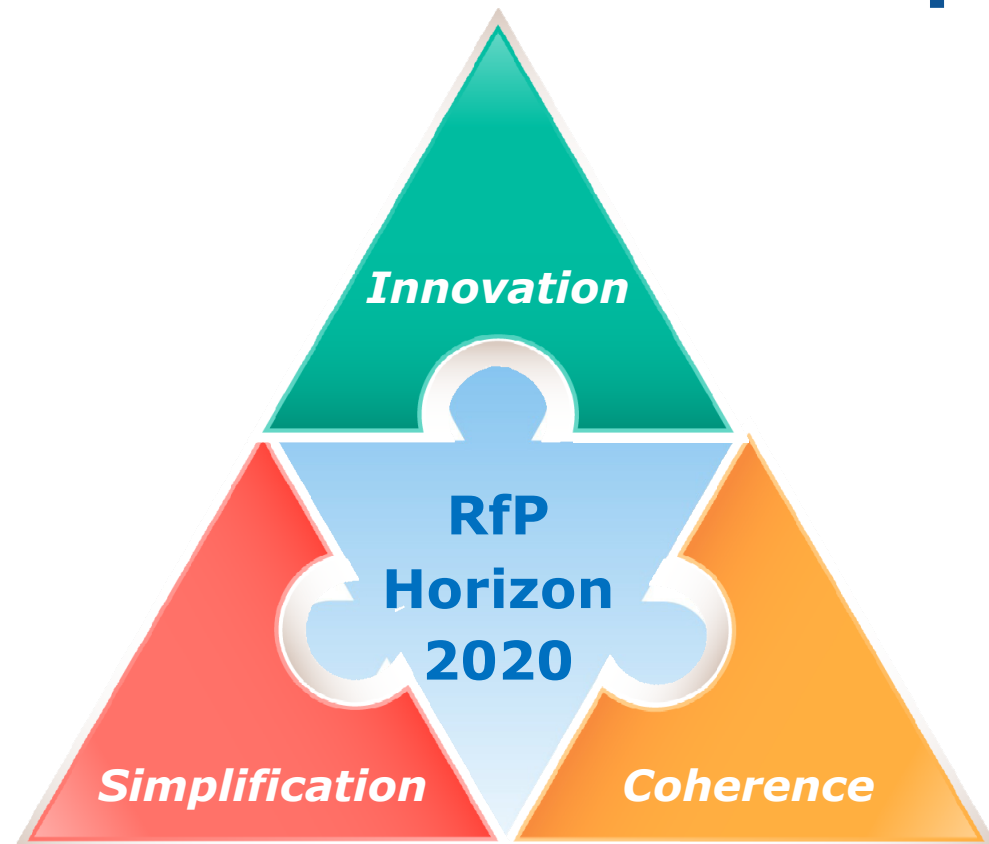


lower risk of errors



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NEW: Rules for Participation





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NEW! Single Set of Rules!



- Covering all H2020 research and innovation actions
- Keeping flexibility where needed.

Conditions of Participation

- ✓ **Minimum conditions**
 - ✓ Collaborative actions: At least **three legal entities** each established in a **different Member State** or **Associated Country**;
 - ✓ ERC, SME instrument, coordination and support, training and mobility actions: at least **one legal entity** established in a Member State or in an **Associated Country**.
- ✓ **Additional conditions**
 - ✓ **In the work programme or work plan**

International Participants: Funding?

- ✓ **Participation OPEN and ENCOURAGED from organisations in all international partner countries - "Open to the World"**
- ✓ **Automatic funding by EU**
 - ✓ **Member states (including EU-based entities from other countries)**
 - ✓ **Associated countries (17)**
 - ✓ **'Developing economies'**
- ✓ **'Industrialised countries' (e.g. Japan) and BRICS: general rule own funding, BUT possible EU funding in exceptional cases**



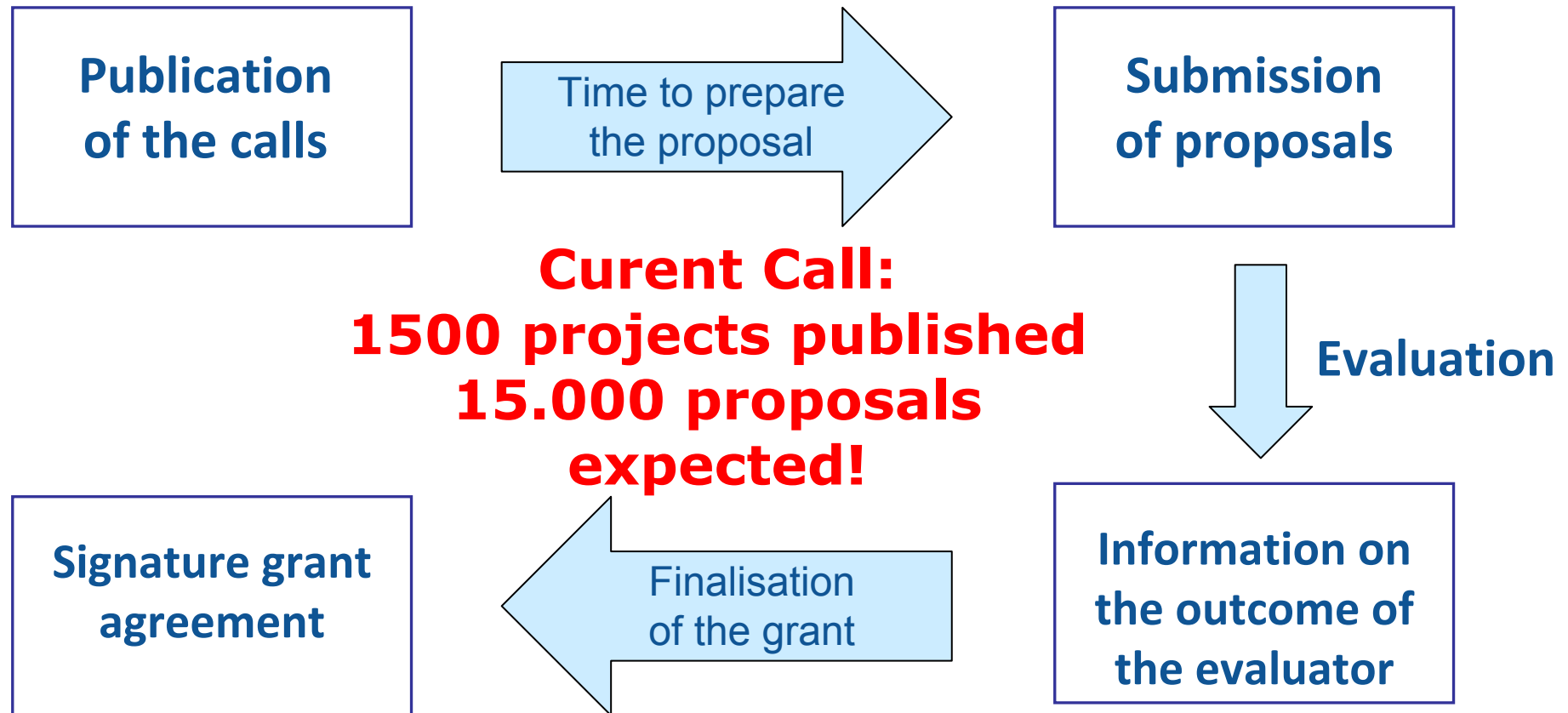
Challenge for International Partners?

- ✓ **Setting up simple, predictable mechanisms to fund automatically participants selected to take part in EU projects ('matching fund')**
- ✓ **Communicating info to potential EU and third country partners!**
- ✓ **Will Japan meet the Challenge?**



SPEEDYER!

The Process: from Call to Grant





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Evaluation of Proposals

STANDARD AWARD CRITERIA

EXCELLENCE

IMPACT

QUALITY &
EFFICIENCY
OF THE ACTION

NEW: Accelerated Process!

A maximum 'TTG' of 8 months



- ✓ **No substantive negotiations: each proposal evaluated 'as is'**
- ✓ **No more paper: all electronic (communication, signature etc.)**



The Other Stuff: IPRs, Funding Rates, etc.

Your Bible: H2020 Work Programmes





Areas of Special Interest for Japan 2014

EU-Japan Research and Development Cooperation in Net Futures

Advanced 5G network infrastructures for the future internet

Research in support of regulation NANOREG II

Coordination of EU and international efforts in safety of nanotechnology

Assessment of environmental impact of nanomaterials

Increasing the capacity to perform nano-safety assessment

Cooperative ITS for safe, congestion-free and sustainable mobility

Aeronautics EU-Japan Support Action

Coordinating and supporting raw materials research and innovation-strategic international dialogues and cooperation



Areas of Special Interest for Japan 2015

Novel materials by design for substituting critical elements

Next generation of tools for risk governance of nanomaterials

New approaches to improve predictive human safety testing

Tackling disease related challenges and threats faced by farmed aquatic animals

Tackling malnutrition in the elderly

International cooperation in aeronautics

International partnership building and support to dialogues with high income countries



**Your One Stop Shop
Resource:
the Participants Portal**



<http://ec.europa.eu/research/participants/portal/>

RESEARCH & INNOVATION

Participant Portal

European Commission > Research & Innovation > Participant Portal > Home

HOME

FUNDING OPPORTUNITIES

HOW TO PARTICIPATE

EXPERTS

SUPPORT ▾

LOGIN

REGISTER

Welcome to the Research and Innovation Participant Portal

About the Participant Portal:

The Participant Portal is your entry point for the electronic administration of EU-funded research and innovation projects. It hosts services for managing proposals and projects throughout their lifecycle.

The Participant Portal supports activities funded mainly by the following EU programmes:

- **7th Framework Programme for Research and Technological Development (FP7)**
- **Competiveness and Innovation Framework Programme (CIP)**

Using the Participant Portal:

As a guest user, browse the public pages to:

- search for funding opportunities
- download guidance and legal documents
- search for the participant identification code (PIC) of an organisation
- contact the FP7 support services and browse the FAQ for guidance on the Participant Portal tools

As a registered user, benefit from personalised services for proposal submission, negotiation, and project management.



WHATS NEW



FUNDING OPPORTUNITIES



HOW TO PARTICIPATE?



WORK AS AN EXPERT



ACCESS MY PERSONAL AREA



INFORMATION AND SUPPORT



CONCLUSION

もっとがんばりましょう

HORIZON 2020

*Excellent Science
Global Challenges
Competitive Industries*

Open to the world!



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Research and
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どうもありがとうございます