Research & Innovation Collaboration

Moderated by: Sami Kazi, Senior Principal Scientist, VTT
13:00 Needs Analysis

Development needs and priorities of Latin American countries in the areas of Digitalization, Bioeconomy, and Renewable Energies will be discussed.

- **Maria Lima Toivanen**, Senior Scientist, VTT
  SWOT analysis – needs and opportunities for cooperation with Latin America

- ELAN country coordinators from Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru

14:00 Coffee and networking
Needs and opportunities for industrial cooperation between Europe and Latin America: Preliminary results of SWOT analysis for LA

Maria Lima-Toivanen, Diego Nieto, VTT, Finland
Rômulo Oliveira, ANPROTEC, Brazil
Alan Campos, Gustavo Otarola, CeNAT, Costa Rica
Micaela Tommasini, CAME, Argentina
Álvaro Acevedo, SOFOFA, Chile
(Amparo Pareja, SNI, Peru)
Brigitte Mayorga, Germán Torres, Tecnalia Colombia

ELAN Network
Technical Mission in Finland
Espoo, 5th – 9th September 2016
Sustainable Business from Bioeconomy, Renewable Energy and Digitalization

Final Program
CONTENTS

• QUICK OVERVIEW OF ELAN
• SWOTS for LA
• EU&LA INTERESTS FOR COLLABORATION
• DISCUSSION
OBJECTIVES OF ELAN NETWORK OF TECHNOLOGY-BASED BUSINESS

**General:** Increase and diversify the European Union's economic presence in Latin America, by generating sustainable collaboration initiatives among R&I actors in which knowledge is transformed into equitable socio-economic development.

**Specific:**

- **To establish a European and Latin American self-sustainable Network (ELAN) of research and innovation (R&I) actors,** in order to promote lasting partnerships;
- to share knowledge and generate technology transfer, in particular in areas aligned with European applied research;
- to **increase SME competitiveness through the generation of technology-based business opportunities.**
TBBO: What collaborations do we want to generate?

Technology-based business opportunities (TBBO)

• On-going problem in European Research & Development:
  ⇒ Results just aren’t reaching the market nor achieving a social impact!
  ⇒ This is a shared concern in Latin America

• Some opportunities are “simple” transactions (one-to-one buying and selling)
  ⇒ BUT, most technology-based business opportunities require the business case to be developed
  ⇒ They require market contrast, pilot tests, business model trial, various risks to be dissipated etc.
  ⇒ They are usually co-created among several actors

TBBO = technological solution + market need
TBBO: What collaborations do we want to generate?

Transactional (simple) TBBO
- A sells to B in exchange for value
- The offer is pre-existent

Multiplying mechanisms
- Ecosystem + model to systematically generate new TBBOs

New TBBO
- Various players develop a new TBBO based on collaboration, requires a development cycle

30 alliances/new TBBO
- 20 direct transfer of technology from EU to LA
- 10 other

10 strategic alliances
The ELAN Network is composed of intermediary organisations who share the mission of supporting companies in the generation of tech-based business opportunities. A network which is growing and whose members work together and proactively to achieve its mission and generate socio-economic impact.

ARGENTINA
- ADIMRA
- (CC) CAME
- INTI
- MINCYT

BRAZIL
- (CC) ANPROTEC
- USP INOVAÇÃO

CHILE
- (CC) CENTRO DE INNOVACIÓN UC
- CORFO
- SOFOFA

COLOMBIA
- COLCIENCIAS
- INNPULSA COLOMBIA
- (CC) TECNALIA COLOMBIA
- TECNOVA

COSTA RICA
- (CC) CENAT / FUNCENAT
- CONICIT
- EARTH UNIVERSITY

EUROPE
- CIRCE
- ERRIN
- EUROCHAMBERS
- GREEN ID
- HNTH
- IAT
- JIP
- CSR NETHERLANDS
- PROMOS
- RBI
- SCUOLA SUPERIORE SANT’ ANNA
- TECHNOLOGY PARTNERS
- TECNALIA
- TNO
- VTT

MEXICO
- ADIAT
- CIEBT-IPN
- PROMEXICO
- CONACYT

PERU
- CONCYTEC
- ITP
- (CC) SNI

(CC) COUNTRY COORDINATOR
<table>
<thead>
<tr>
<th>Result Areas and Activities</th>
<th>R1. Informing the background for establishment of TBBOs between EU &amp; LA</th>
<th>R2. Improvement of collaboration in innovation between EU and LA</th>
<th>R3. Development of Sustainability plan for ELAN Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1. Mapping of industry needs to enter into collaboration</td>
<td>A6. Networking and capacity building events and technical missions; Formation of strategic collaboration among partners</td>
<td>A6. Creation and deployment of the ELAN Network</td>
<td>A7. Creation and operation of a network support platform to foster virtual collaboration</td>
</tr>
<tr>
<td>A2. Mapping of Innovation Ecosystems in LA</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>A3. Identification of Best practices and exemplary cases</td>
<td></td>
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</tr>
<tr>
<td>A4. SWOT analysis of factors affecting EU-LA collaboration in industrial innovation</td>
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</tr>
</tbody>
</table>
THE SWOT ANALYSIS
The SWOT Analysis in ELAN

- SWOT analysis as applied in strategy studies is used to assess an organization (system, country)’s position in relation to its environment.
  - Strengths and weaknesses (internal) relates to the structural, service, product, operational, cultural and strategic factors determining organisation’s ability to function effectively.
  - Opportunities and threats (external) are generally technological, political, economic and social in nature.

- Objective of ELAN SWOTS: determine the factors affecting EU-LA collaboration in industrial innovation.

- Deliverables: 1 SWOT for each ELAN country; 1 EU SWOT; 1 EU-LAC SWOT
PRELIMINARY RESULTS

(MEXICO)
BRAZIL
ARGENTINA
CHILE
COSTA RICA
PERU
COLOMBIA
<table>
<thead>
<tr>
<th><strong>MEXICO</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area:</strong> 1,964,375 sq. km</td>
</tr>
<tr>
<td><strong>Population:</strong> 121,736,809</td>
</tr>
<tr>
<td><strong>Population growth rate:</strong> 1.18 %</td>
</tr>
<tr>
<td><strong>Labor force:</strong> 52.81 million</td>
</tr>
<tr>
<td><strong>Labor force by occupation:</strong> Agriculture: 13.4%, Industry: 24.1 %, Services: 61.9 %</td>
</tr>
<tr>
<td><strong>GDP (PPP):</strong> US$ 2,227.18 billion (IMF)</td>
</tr>
<tr>
<td><strong>Imports:</strong> US$ 434.8 billion (2015)</td>
</tr>
<tr>
<td><strong>Exports:</strong> US$ 430.9 billion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Main Imports</strong></th>
<th><strong>Markets</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal working machines, steel mill products, agricultural machinery, electrical equipment, automobile parts (assembly and repair), aircraft</td>
<td>USA 48.8%, China 16.6 %, Japan 4.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Main Exports</strong></th>
<th><strong>Markets</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufactured goods, oil and oil products, silver, fruits, vegetables, coffee, cotton</td>
<td>USA 80.2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Trade Agreements</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>NAFTA, TLC (Canada, Panama, Peru, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Uruguay, Japan) TPP, APEC, OCDE, ALADI, WTO</td>
</tr>
</tbody>
</table>
PRELIMINARY RESULTS

(MEXICO)

BRAZIL

ARGENTINA

CHILE

COSTA RICA

PERU

COLOMBIA
### BRAZIL

<table>
<thead>
<tr>
<th><strong>Area:</strong> 8,515,767 sq. km</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population:</strong> 205,338,000</td>
</tr>
<tr>
<td><strong>Population growth rate:</strong> 0.77 %</td>
</tr>
<tr>
<td><strong>Labor force:</strong> 109.2 million</td>
</tr>
<tr>
<td><strong>Labor force by occupation:</strong> Agriculture: 15.7 %, Industry: 13.3 %, Services: 71 %</td>
</tr>
<tr>
<td><strong>GDP (PPP):</strong> U$ 3,192.41 billion (IMF)</td>
</tr>
<tr>
<td><strong>Imports:</strong> $ 174.2 billion (2015)</td>
</tr>
<tr>
<td><strong>Exports:</strong> $ 189.1 billion</td>
</tr>
</tbody>
</table>

#### Main Imports

- Machinery, electrical and transport equipment, chemical products, oil, automotive parts, electronics

#### Markets

- China 18.1 %, USA 15.3 %, Germany 6%
- Argentina 6 %, Nigeria 4.2 % (2014)

#### Main Exports

- Transport equipment, iron ore, soybeans, footwear, coffee, automobiles

#### Markets

- China 19.1 %, USA 12.6 %, Argentina 6.8 %, Netherlands 5.3 % (2014)

#### Trade Agreements

- MERCOSUR, Colombia, Israel, Peru, Bolivia, Chile, Mexico, Venezuela, India, WTO
### Priority sectors for industrial collaboration with Europe

<table>
<thead>
<tr>
<th>Sector</th>
<th>Needs</th>
<th>Opportunities</th>
<th>Challenges</th>
</tr>
</thead>
</table>
| **Renewable Energy** | • Products  
                    • Services   
                    • Infrastructure | • Biofuels - second generation | • Explore the potential for cooperation on renewable areas with: solar power, wind, biomass and smart grids |
| **Health**   | • New drugs  
                    • Pharmaceutical raw materials | • E-health and M-health  
                    • Medical devices  
                    • Vaccines | • Encouraging cooperation with Brazilian researchers |
| **ICT**      | • Infrastructure  
                    • Human Resources | • IoT  
                    • Cloud Computing | • Explore the potential for cooperation on high performance computing applications to societal challenges |
Brazil: SWOT Analysis for Health Sector

**S**
- Public Health Care System (SUS)
- Market size
- Increased number of medical procedures and products offered
- Strategic initiatives for collaboration, research and education

**O**
- Increase in purchasing power
- Willingness to spend more in health care services
- Favorable demographic conditions
- Growing elderly population
- Initiatives to attract investments
- Consolidation of the sector
- Low production capacity for e.g. pharmaceutical drugs, vaccines and medical devices

**W**
- Lack of direction and strategy
- Underfinanced system
- Fragmented national networks for health assistance and surveillance
- Lack of adequate human resources
- Unequal Access to health across population groups and regions
- Low investment in innovation

**T**
- Recession
- International barriers
- Bureaucracy
- Tax system
- Corruption
Brazil: SWOT Analysis for ICT Sector

**Strengths (S):**
- 5th largest ICT market in the world
- In LAC, BR accounts for 46% all ICT investments
- Well developed sector
- Domestic IT production: US$ 110 bi
- Incentives for local manufacturing
- Brazilians are early adopters of technologies
- 161 tech parks in operation

**Weaknesses (W):**
- Lack of infrastructure
- Lack of adequate human resources
- Bureaucracy
- Lack of proficiency in English

**Opportunities (O):**
- Increase in purchasing power
- Initiatives to attract investments
- Market expansion: cloud security, cloud services and infrastructure
- Public private partnerships
- IT Law (8248/1991) for ICT manufacturers

**Threats (T):**
- Recession
- International barriers
- Tax system
- Corruption
Brazil: SWOT Analysis for Renewable Energy Sector

**S** - Strengths:
- Strategic focus on wind energy
- Good onshore wind resources and sufficient land available
- Transparent auction system

**W** - Weaknesses:
- Supply chain not yet optimized
- Poor infrastructure
- Lack of skilled human resources
- High project costs

**O** - Opportunities:
- Estimated wind potential (300GW)
- Development of small and big projects
- R&D needs
- Favourable financing of projects

**T** - Threats:
- Auction system increases competition
- Poor coordination and communication between wind energy developers and grid operators
- Local content requirements
- Regulation and obtaining of environmental licenses
PRELIMINARY RESULTS

MEXICO
BRAZIL
ARGENTINA
CHILE
COSTA RICA
PERU
COLOMBIA
ARGENTINA

<table>
<thead>
<tr>
<th>Area: 2,780,400 sq. km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population: 43,431,886</td>
</tr>
<tr>
<td>Population growth rate: 0.93 %</td>
</tr>
<tr>
<td>Labor force: 17.47 million</td>
</tr>
<tr>
<td>Labor force by occupation: Agriculture: 5 %, Industry: 23 %, Services: 72 %</td>
</tr>
<tr>
<td>GDP (PPP): U$ 971.97 billion (IMF)</td>
</tr>
<tr>
<td>Imports: $ 60.56 billion (2015)</td>
</tr>
<tr>
<td>Exports: $ 65.95 billion</td>
</tr>
</tbody>
</table>

**Main Exports**

- Soybeans and derivatives, petroleum and natural gas, vehicles, corn, wheat

**Markets**

- Brazil 20.5 %, China 6.6 %, USA 5.7 %, Chile 4.2%

**Main Imports**

- Machinery, motor vehicles, petroleum and natural gas, organic chemicals, plastics

**Markets**

- Brazil 22.1 %, China 16.2 %, USA 13.8 %, Germany 5.4 %, Bolivia 4.2%

**Trade Agreements**

- MERCOSUR, Acuerdo de Complementación Económica Argentina-Uruguay and Argentina-Chile, UNASUR, CELAC, OAS, WTO

This project is funded by the European Union

ELAN
## Priority sectors for industrial collaboration with Europe

<table>
<thead>
<tr>
<th>Sector</th>
<th>Needs</th>
<th>Opportunities</th>
<th>Challenges</th>
</tr>
</thead>
</table>
| **Renewable Energy** | • Infrastructure  
                   • Research and Development  
                   • Investment  | • Market is in development  
                   • Wind Energy In Patagonia  
                   and Solar farm development in NW Argentina have been successful  | • Policies and funds go to other types of energy  
                   ex: Nuclear, Fossil  
                   • Limited cooperation with private sector towards cleaner energies  
                   • Low demand |
| **ICT**          | • Human resources  
                   • Investment in Technological platforms  | • Market with a high demand  
                   • Everyday more professional join the working force  | • Neighboring countries are actively working on developing their ICT´s environment |
| **Biotechnology** | • Research and development  
                   • Strengthening the existing human capital  | • Huge variety in terms of Biotech applications and worldwide demand is growing  | • Low cooperation between academic and public/private sector                   |
Argentina: SWOT Analysis for Renewable Energy Sector

**S** (Strengths)
- Market size
- Growing public and private initiatives for collaboration, research and education
- Favorable climatic regions

**W** (Weaknesses)
- Undirected strategy
- Lack of adequate human resources
- Limited investment in innovation

**O** (Opportunities)
- Favorable conditions for investment
- Low production capacity but with very successful solar and wind farms
- Transition in Government*

**T** (Threats)
- Transition in Government*
- International barriers
- Bureaucracy
- Tax system
- Corruption
Argentina: SWOT Analysis for ICT Sector

**Strengths**
- Expertise of Human capital
- Transversality of the industry

**Weaknesses**
- Limited human capital
- Few supporting public policies
- Low Innovation culture
- Low performance in easiness of doing business index

**Opportunities**
- Private initiatives
- Private willingness for investment
- Market growth
- Infrastructure expansion
- High competitiveness

**Threats**
- International competition, especially Asia
PRELIMINARY RESULTS

MEXICO
BRAZIL
ARGENTINA
CHILE
COSTA RICA
PERU
COLOMBIA
### Chile

| Area: 756,102 km |
| Population growth rate: 0.82 % (estimated 2015) |
| Labor force: 8.68 million (estimated 2015) |
| Labor force by occupation: Services: 63.9%, Industry: 23 %, Agriculture: 13.2% |
| GDP (PPP): USD 422.4 billion (2015) |
| Imports: $ 56 billion (estimated 2015) |
| Exports: $ 61.82 billion (estimated 2015) |

#### Main Imports

- Petroleum and petroleum products, chemicals, electrical and telecommunications equipment, industrial machinery, vehicles, natural gas.

#### Markets

- USA 22.9 %, China 18.2 %, Argentina 6.6 %, Brazil 6.5 % (2014)

#### Main Exports

- Copper (Cathodes & Concentrates), Cellulose y paper, fruit, fish products, chemical products, wine

#### Markets

- Asia 40.8 %, USA 20.1 %, South America 17.5 %, Europe 16.3% (2014)

#### Trade Agreements

- **Mercosur**: Argentina, Paraguay, Venezuela, Brazil and Uruguay. Chile participates as an associated country.
- **European Union**: Germany, Austria, Belgium, Bulgaria, Cyprus, Croatia, Denmark, Slovakia, Slovenia, Spain, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, United Kingdom, Czech Republic, Romania, Sweden.
- **EFTA**: Iceland, Liechtenstein, Norway y Switzerland.
- **P4**: Chile, New Zeland, Singapore y Brunei Darussalam.
- **Transpacific Partnership**: Australia, Brunei Darussalam, Canada, Chile, United States, Malasia, Mexico, New Zeland, Peru, Singapore, Vietnam and Japan.
- **Pacific Alliance**: Chile, Colombia, Mexico y Peru.
# Priority sectors for industrial collaboration with Europe

<table>
<thead>
<tr>
<th>Sector</th>
<th>Needs</th>
<th>Opportunities</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Renewable Energy</strong></td>
<td>• New Products and technologies • Specialized services • Competitive suppliers • R&amp;D infrastructure • Qualified human capital</td>
<td>• Solar Industry (storage and maintenance)</td>
<td>• Develop competitive solar energy industry • Improvement of productivity Insertion into knowledge economy • Use conditions of natural laboratory</td>
</tr>
<tr>
<td><strong>Healthy Foods</strong></td>
<td>• Information, international standards, regulations. • Infrastructure R&amp;DI and specialized services • Access to new markets • International networks</td>
<td>• Health Foods (raw materials, ingredients, specialized additives, packaging and packing)</td>
<td>• Promote a competitive industry, • Reach standards of quality, safety, sustainability and quality of life</td>
</tr>
<tr>
<td><strong>New Materials (Sustainable Construction)</strong></td>
<td>• Process Efficiency • New Products and technologies • Competitive suppliers • Human capital • Infrastructure R&amp;DI</td>
<td>• Residential and nonresidential construction</td>
<td>• Improvements in process efficiency, technological development, project management platforms • Training of human capital and customers</td>
</tr>
</tbody>
</table>
Chile: SWOT Analysis for Renewable Energy Sector

Strengths:
- Strategic state focus on solar energy.
- High natural resources availability in the country.
- Strong and stable public policy on renewable energy.

Weaknesses:
- Supply chain not yet optimized
- Poor grid infrastructure
- Lack of skilled human resources
- Low level of investment in R&D
- Low technology transfer from universities

Opportunities:
- At least 70% of the electricity supply to be supplied by renewable sources by 2050
- Chile as a hotspot for renewable energy deployment
- Natural laboratory for testing

Threats:
- Prices and increased availability of fossil fuels
- International economic crisis
- Drop in international demand of commodities (copper)
Chile: SWOT Analysis for Healthy Foods Sector

Strengths:
- 1 of the 5 zones with Mediterranean climate in the world
- Increased quality life of the population
- Policy and favorable regulatory framework
- Availability of funds
- Raw materials
- Large companies with high quality standards and certifications for international markets

Weaknesses:
- Lack of adequate human capital
- Low level of investment in R&DI in the private sector
- Low technology transfer from universities
- High cost of energy and water
- Very low associativity
- Geographical remoteness to markets result in long transit times

Opportunities:
- Increased consumption of healthy foods
- International trade agreements
- Favorable demographic conditions (advantage phytozoosanitary)
- Growing elderly population
- Innititatives to attract investments
- Consolidation of the healthy foods sector
- Especial funds from the public sector

Threats:
- International economic crisis
- Drop in international demand of commodities (copper)
- International trade barriers
- Rising food international prices
- Climate change
- Entry barriers and demands on standards and certifications
Chile: SWOT Analysis for Sustainable Construction

**Strengths (S):**
- Chile has large producers of market pulp and paper
- Important companies and active private sector
- Knowledge base (research centers and universities)

**Weaknesses (W):**
- Lack of adequate human resources.
- Low level of investment in R&DI in the private sector
- Low technology transfer from universities
- Low productivity of the construction companies

**Opportunities (O):**
- Public-private partnerships
- Raising awareness on end consumers
- Upcoming energy efficiency regulations on the housing market
- New environmental regulations on air pollution
- Low projects with certification LEED

**Threats (T):**
- International economic crisis
- Drop in international demand of Commodities (copper)
- Natural Disasters
- Low coordination of key actors of the sector
PRELIMINARY RESULTS

MEXICO
BRAZIL
ARGENTINA
CHILE
COSTA RICA
PERU
COLOMBIA
## COSTA RICA

<table>
<thead>
<tr>
<th>Area: 51,100 sq. km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population: 4,814,144</td>
</tr>
<tr>
<td>Population growth rate: 1.22%</td>
</tr>
<tr>
<td>Labor force: 2.27 million</td>
</tr>
<tr>
<td>Labor force by occupation: Agriculture: 14 %, Industry: 22 %, Services: 64 %</td>
</tr>
<tr>
<td>GDP (PPP): $74.88 billion (IMF)</td>
</tr>
<tr>
<td>Imports: $15.44 billion (2015)</td>
</tr>
<tr>
<td>Exports: $9.76 billion</td>
</tr>
</tbody>
</table>

### Main Imports
- Raw materials, consumer goods, capital equipment, petroleum, construction materials
- Markets: USA 44.4%, China 10%, Mexico 6.7%

### Main Exports
- Bananas, pineapples, coffee, melons, plants, sugar, beef, seafood, electronic components
- Markets: USA 38.4%, Netherlands 6.2%, Panama 5.3%, Nicaragua 4.4%, Guatemala 4.1% (2014)

### Trade Agreements
- WTO, CAIRNS Group, CAFTA, AACUE, free trade agreement with EU, TLC (Canada, Chile, China, Mexico, Panama, Peru, Singapore)
## Priority sectors for industrial collaboration with Europe

<table>
<thead>
<tr>
<th>Sector</th>
<th>Needs</th>
<th>Opportunities</th>
<th>Challenges</th>
</tr>
</thead>
</table>
| Nanotechnology          | • Network stability  
                          • IPR Knowledge  
                          • Investment for development                                     | • Highly skilled human resources  
                          • Installed capacity  
                          • Research connectivity (GIANT, RedCLARA)                        | • Improve resources  
                          • Internal regulations  
                          • Resources mobilization                                          |
| Biotechnology           | • New resources  
                          • Make known how biotechnology works.                              | • Human resources  
                          • Installed capacity  
                          • Academia and Government support                                 | • Improve resources  
                          • Internal regulations  
                          • Resources mobilization                                          |
| Alternative energies    | • Increase the variety of supply energy sources                       | • High production capacity  
                          • Skilled Human resources                                          | • Internal regulations  
                          • Infrastructure                                                   |
Costa Rica SWOT Analysis

**Strengths (S):**
- Education system strengthened by the policies of the Central Government
- Professionals available to develop the areas of nanotechnology, biotechnology and renewable energy
- Advanced Laboratories with sufficient conditions to meet R&D needs
- Scientific communication networks (GIANT - RedCLARA)

**Weaknesses (W):**
- Slow and bureaucratic procedures may affect the efficiency of project development
- Financial resources scattered in different institutions seeking the same goal
- Limited availability of private funding for technology projects
- Developing innovation ecosystem

**Opportunities (O):**
- Country that offers the necessary conditions to develop areas of interest
- Country that encourages use of new technologies, technology transfer and innovation
- Participation in major European and Latin American R&D networks

**Threats (T):**
- Not being able to efficiently meet the needs that the sector demands.
- Lacking parameters to meet international standards
- Structural weaknesses in intellectual property issues
PRELIMINARY RESULTS

MEXICO
BRAZIL
ARGENTINA
CHILE
COSTA RICA
PERU
COLOMBIA
<table>
<thead>
<tr>
<th>PERU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area:</strong> 1,285,216 sq. km</td>
</tr>
<tr>
<td><strong>Population:</strong> 30,444,999</td>
</tr>
<tr>
<td><strong>Population growth rate:</strong> 0.97 %</td>
</tr>
<tr>
<td><strong>Labor force:</strong> 16.8 million</td>
</tr>
<tr>
<td><strong>Labor force by occupation:</strong> Agriculture: 25.8 %, Industry: 17.4 %, Services: 56.8 %</td>
</tr>
<tr>
<td><strong>GDP (PPP):</strong> U$389.15 billion (IMF)</td>
</tr>
<tr>
<td><strong>Imports:</strong> U$ 38.97 billion (2015)</td>
</tr>
<tr>
<td><strong>Exports:</strong> U$ 36.35 billion</td>
</tr>
<tr>
<td><strong>Main Imports</strong></td>
</tr>
<tr>
<td>Petroleum and petroleum products, chemicals, machinery, vehicles, iron, wheat, corn, soybean products</td>
</tr>
<tr>
<td><strong>Markets</strong></td>
</tr>
<tr>
<td>China 21%, USA 21%, Brazil 4.7%, Mexico 4.6%, Ecuador 4.2 %</td>
</tr>
<tr>
<td><strong>Main Exports</strong></td>
</tr>
<tr>
<td>Copper, gold, lead, zinc, tin, iron ore, silver, crude petroleum, fruits, apparel and textiles, fish, chemicals.</td>
</tr>
<tr>
<td><strong>Markets</strong></td>
</tr>
<tr>
<td>China 18.3 %, USA 16.1%, Switzerland 6.9%, Canada 6.6%, Brazil 4.2 %, Japan 4.1 %</td>
</tr>
<tr>
<td><strong>Trade Agreements</strong></td>
</tr>
<tr>
<td>CAN, EFTA, MERCOSUR (Associate country), Free Trade agreements (UE, Japan, Costa Rica, Panama, Mexico, South Korea, China, Singapore, Canada, USA, Chile, Thailand), WTO</td>
</tr>
</tbody>
</table>

This project is funded by the European Union.
<table>
<thead>
<tr>
<th>Sector</th>
<th>Needs</th>
<th>Opportunities</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT</td>
<td>• Market studies about demand (products and services)</td>
<td>• ICT platforms</td>
<td>• Lack of skilled human resources</td>
</tr>
<tr>
<td></td>
<td>• Develop a tangible technology transfer through cooperation</td>
<td>• Science of data</td>
<td>• Lack of researchers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Cognitive systems</td>
<td>• Low especialization among enterprises</td>
</tr>
<tr>
<td>New Materials</td>
<td>• Develop technical parameters for materials</td>
<td>• Nanomaterials and semiconductors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Have an efficient after market technical service</td>
<td>• Natural polymers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Construction sector in need of new materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>• Improve directives about IPR</td>
<td>• High number of energy sources</td>
<td>• Link renewable energy to the national energy production infrastructure</td>
</tr>
<tr>
<td></td>
<td>• Develop dignostics for deployment of renewable energy</td>
<td>• Business sector disposition to use renewable energies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Peru: SWOT Analysis for ICT Sector

**S**
- Dedicated resources for ICT development from private and public sector
- There is a national policy for the development of Science, Technology and Innovation

**W**
- Inefficient supply to cover the demand of Technology (telecommunications)
- Poor ICT infrastructure
- Limited technology adoption and transfer due to low supply of related services

**O**
- Recently implemented free trade agreements offers considerable potential for new developments
- Peru is considered to have an ideal investment environment compared to other countries in the region.

**T**
- Competing with better ICT infrastructures of neighbouring countries
- Reduction of external demand due to the economic deceleration from Peru’s main partners (USA and China)
Peru: SWOT Analysis for New Materials Sector

**S** - Strengths
- Big diversity of raw material (minerals)
- Public program (Program Programa Nacional Transversal de ciencia y Tecnología en materiales)

**W** - Weaknesses
- Limited access to technology for detection and solution of technological industrial problems
- Not enough incentives for research in ICT, which limits new materials developments
- Limited supply of specialized programs for materials

**O** - Opportunities
- Ideal conditions for investment
- Demanding sectors are growing
- Commercial treaties recently activated and ready to operate

**T** - Threats
- External producers (Asia) are starting to research and develop new materials
- Other countries in the region already have better infrastructure and programs for new materials development
Peru: SWOT Analysis for Renewable Energy Sector

**S (Strengths):**
- Successful experiences in rural and low income areas
- Regulations and legal devices that stimulate use of renewable energies

**W (Weaknesses):**
- Low levels of renewable energies within national production (just 2.5%)
- Inefficient deployment of technologies and services suitable for renewable energies

**O (Opportunities):**
- Successful pilot programs in Latin America (Solar and Wind)
- International organisms already present in Peru interested to use renewable energies
- Free trade agreement recently signed between Peru and EU

**T (Threats):**
- Uncertainty on the effects of rapid climate change (Peru - third most affected country by greenhouse effects)
- Conflict of interest from external parties to invest in the country due to limited IPR protection
PRELIMINARY RESULTS

MEXICO
BRAZIL
ARGENTINA
CHILE
COSTA RICA
PERU
COLOMBIA
### COLOMBIA

<table>
<thead>
<tr>
<th>Area: 1,141,748 sq. km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population: 48,663,285</td>
</tr>
<tr>
<td>Population growth rate: 1.04%</td>
</tr>
<tr>
<td>Labor force: 24.34 million</td>
</tr>
<tr>
<td>Labor force by occupation: Agriculture: 17%, Industry: 21%, Services: 62%</td>
</tr>
<tr>
<td>GDP (PPP): $667.44 billion (IMF)</td>
</tr>
<tr>
<td>Imports: $61.5 billion (2015)</td>
</tr>
<tr>
<td>Exports: $56.5 billion</td>
</tr>
</tbody>
</table>

#### Main Imports
- Refined petroleum, industrial equipment, transportation equipment, consumer goods, chemicals, paper products, fuels, electricity

#### Markets
- USA 28%, China 18.4%, Mexico 8.2%

#### Main Exports
- Petroleum, coal, emeralds, coffee, nickel, cut flowers, bananas, apparel

#### Markets
- USA 26.3%, China 10.5%, Panama 6.6%, Spain 5.8%, India 5.1%

#### Trade Agreements
- CAN, Free Trade Agreements (UE, Canada, Triangulo del norte, Chile, USA, Mexico, Venezuela, CARICOM (observer), Panama, Costa Rica, Nicaragua, Israel, South Korea), MERCOSUR (Associate member), WTO, EFTA (AELC)

---

This project is funded by the European Union
### Colombia

#### Priority sectors for industrial collaboration with Europe

<table>
<thead>
<tr>
<th>Sector</th>
<th>Needs</th>
<th>Opportunities</th>
<th>Challenges</th>
</tr>
</thead>
</table>
| ICT                        | • Logistics and transport  
• Health  
• Tourism  
• Oil and gas  
• BPO  
• Finance                    | • Process Management Systems  
• Data Modelling  
• Prediction and optimization models  
• Mobility                         | Articulate ICT offer with post-conflict and renovation processes |
| Biotechnology/Bioeconomy   | • Red: New medicines, vaccines and antibiotics  
• Green: Genetically modified and transgenic plants, functional foods | Biotechnologies with specific application to:  
• industry  
• food  
• medicine environment  
• energy                                       | Use local biodiversity and research capacities |
| Renewable Energies         | • Wind Power  
• Biomass  
• Oceans  
• Geothermal energy                | • Clean energies  
• Green businesses  
• Energy efficiency                        | Transformation into smart cities |
Colombia: SWOT Analysis for ICT Sector

**S**
- Support the promotion and dissemination of ICT through Vive Digital plan for the deployment of infrastructure
- Prioritization government, implementation of legislation, e-government, and reliable legal framework for those who want to invest
- Government funding for international certification in quality models.

**W**
- Small businesses with difficulty operating in global markets.
- No joint in R & D with the business needs of the sector.
- Lack of support in training of professionals, especially with very high profile (PhD, MSc)
- Limitation of bilingualism
- Limited ability to manage complex projects

**O**
- Growing demand for deployment of infrastructure and the rise of ICT for development of new markets for digital content and services.
- Good prospects for external image and attract foreign investment.
- The fast dynamics of change in the sector at international level
- The Free Trade generate multiple investment opportunities, access to new markets and access to specialized training.
- Existence of empirical talent

**T**
- Decrease in indicators of training new professionals related to ICT and insufficient ability to retain talent in training and already formed.
- Positioning the software and services sectors of other countries in Latin America, Asia and Africa.
- Increasing skills with suppliers of software and services, with even more international and multinational operating in the country.
Colombia: SWOT Analysis for Biotechnology Sector

Strengths:
- Faced with some species of vegetables, progress has been made towards chemical characterizations of extracts, which have been incorporated into assays that in some cases have deployed biological activity with commercial interests in Colombia, with international support.

Weaknesses:
- There is low national capacity for the development of modern bioprospecting activities and little use of modern technologies to accelerate these activities so that they transform from a purely scientific activity to an activity with more industrial and commercial nature
- Research requires support for a specific approach to industrial products or commercial interests

Opportunities:
- The biotech activity in the country is at the moment that can be supported and directed towards the search and systematic identification of genes, proteins and metabolites and determination of commercial use, taking advantage of the government, business and current academic interest.
- Constituting a field of international attention to the current ecosystem in the country

Threats:
- The biotech activity in the country should be supported out of academic research to industrial production and marketing to support various productive sectors. Always responsibly with this biodiversity in the country
Colombia: SWOT Analysis for Renewable Energies Sector

**S** - Stable regulatory framework to integrate non-conventional renewable energy to Nation Energy System (Law 1715 of 2014)
- Predominance in technology management and R&D
- Diversification of activities such as use of alternative energies comprehensive
- Getting cleaner energy

**W** - Requiring a strong economic investment, prevents many consumers to feel willing to purchase alternatives energy
- Lack of joint strategies among the actors that are articulated in the sector

**O** - Initiatives against projects for areas not interconnected by renewable energies
- Increased ostentatious technological solutions to energy potential available in Clean Energy
- Good operating practices BPO in relation to the integrated management to implement

**T** - Few specific training programs for the sector, that could represent little interest to the incorporation of professionals in the sector
ICT and renewable energies strongest potential (and already established) for cooperation between EU and LA. Other emerging opportunities (biotechnology, nanotechnologies, new materials). All focus sectors contemplated.

Challenges related (mostly) to business environment, human capital, infrastructure and research-industry collaboration

Opportunities: size of internal markets, demographics, natural conditions (and challenges)

Threats related to regulations (IPR), low prices for commodities, competing markets
EU and LA Interests for Industrial Cooperation

Source: Europe and Latin America and the Caribbean innovation and technology survey. TNO Caribbean 2016.
Topics for Discussion

- How does the EU SWOT look like?

- What are the main barriers and motivations for Finland (compared to other EU countries) establish collaboration with LA?

- What about industrial collaboration being implemented together with capacity and infrastructure building?

- Which actors/programs/initiatives need to be involved in the facilitation of European technology-based businesses in LA?
Thank you!
Kiitos!
Muchas Gracias!
Muito obrigada!

Contact people:

Maika Gorostidi
ELAN Network Manager
maika.gorostidi@tecnalia.com

Maria Lima Toivanen
Maria.limatoivanen@vtt.fi
14:30 **Research & Innovation Collaboration Panel**

A distinguished panel will offer valuable insight on and guidance towards initiating capacity building, research and innovation collaboration, and business development between Latin America and Europe.

**Distinguished panellists:**
- Representatives of Latin American Embassies in Finland
- **Eeva Grannenfelt**, Managing Partner, Grannenfelt Finance
- **Matti Landin**, Trade Commissioner, FinPro Brazil
- **Maissa Ftiti**, International Business Coordinator, Merinova

15:30 **Horizon 2020**

Overview of Horizon 2020, the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020).

- **Lula Rosso**, Specialist, EU Affairs, VTT Technical Research Centre of Finland
Open to the world: Horizon 2020, the EU research and innovation funding programme (2014 to 2020)

Dr. Lula Rosso, VTT
Specialist, EU affairs
European programmes lie at the heart of VTT's international research

VTT is the single largest EU funding recipient in Finland.

VTT was engaged in 445 international public RDI projects in 2015.

H2020 new projects granted until June 2016: 111 (17 as coordinator)

Granted H2020 funding 2014-2016: 53 million €

Share of industry partners in VTT’s H2020 project portfolio is significant

- 53% of all partners are from industry in those projects where VTT is involved. This profile clearly distinguishes VTT from universities.
# European Research Ranking 2015

## Overall Score:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institution</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE</td>
<td>80.35</td>
</tr>
<tr>
<td>2</td>
<td>FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG E.V.</td>
<td>67.66</td>
</tr>
<tr>
<td>3</td>
<td>COMMISSARIAT À L’ENERGIE ATOMIQUE</td>
<td>55.94</td>
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<tr>
<td>4</td>
<td>MAX PLANCK GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN E.V.</td>
<td>48.96</td>
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<tr>
<td>5</td>
<td>CONSIGLIO NAZIONALE DELLE RICERCHE</td>
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<tr>
<td>6</td>
<td>UNIVERSITY COLLEGE LONDON</td>
<td>45.54</td>
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<tr>
<td>7</td>
<td>THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE</td>
<td>45.3</td>
</tr>
<tr>
<td>8</td>
<td>THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD</td>
<td>45.11</td>
</tr>
<tr>
<td>9</td>
<td>AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS</td>
<td>44.97</td>
</tr>
<tr>
<td>10</td>
<td>IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE</td>
<td>42.9</td>
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<tr>
<td>11</td>
<td>VTT TECHNICAL RESEARCH CENTRE OF FINLAND</td>
<td>42.81</td>
</tr>
<tr>
<td>12</td>
<td>UNIVERSITY OF COPENHAGEN</td>
<td>42.79</td>
</tr>
<tr>
<td>13</td>
<td>THE UNIVERSITY OF EDINBURGH</td>
<td>38.19</td>
</tr>
<tr>
<td>14</td>
<td>DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV</td>
<td>37.19</td>
</tr>
<tr>
<td>15</td>
<td>EIDGENØSSISCHEN TECHNISCHE HOCHSCHULE ZURICH</td>
<td>36.88</td>
</tr>
<tr>
<td>16</td>
<td>MATIMOP, ISRAELI INDUSTRY CENTER FOR RESEARCH &amp; DEVELOPMENT</td>
<td>35.8</td>
</tr>
<tr>
<td>17</td>
<td>THE NETHERLANDS ORGANISATION FOR HEALTH RESEARCH AND DEVELOPMENT</td>
<td>35.6</td>
</tr>
<tr>
<td>18</td>
<td>TECHNISCHE UNIVERSITEIT DELFT</td>
<td>35.39</td>
</tr>
<tr>
<td>19</td>
<td>KATHOLIEKE UNIVERSITEIT LEUVEN</td>
<td>34.92</td>
</tr>
<tr>
<td>20</td>
<td>FUNDACION TECNALIA RESEARCH &amp; INNOVATION</td>
<td>34.67</td>
</tr>
</tbody>
</table>

[http://www.researchranking.org/](http://www.researchranking.org/) provides **independent ranking based on European project database CORDIS**
## VTT’s European project collaborations

<table>
<thead>
<tr>
<th>Partner Institution</th>
<th>Projects [No:]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. COMMISSARIAT A L’ENERGIE ATOMIQUE</td>
<td>149</td>
</tr>
<tr>
<td>2. FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG EV</td>
<td>113</td>
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<tr>
<td>3. NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO</td>
<td>110</td>
</tr>
<tr>
<td>4. FUNDACION TECNALIA RESEARCH &amp; INNOVATION</td>
<td>92</td>
</tr>
<tr>
<td>5. CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE</td>
<td>86</td>
</tr>
<tr>
<td>6. FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG EV</td>
<td>79</td>
</tr>
<tr>
<td>7. DANMARKS TEKNISKE UNIVERSITET</td>
<td>54</td>
</tr>
<tr>
<td>8. ELECTRICITE DE FRANCE</td>
<td>54</td>
</tr>
<tr>
<td>9. TECHNISCHE UNIVERSITEIT DELFT</td>
<td>54</td>
</tr>
<tr>
<td>10. COMMISSION OF THE EUROPEAN COMMUNITIES DIRECTORATE GENERAL JOINT RESEARCH CENTRE JRC</td>
<td>49</td>
</tr>
<tr>
<td>11. IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE</td>
<td>48</td>
</tr>
<tr>
<td>12. STIFTELSEN SINTEF</td>
<td>48</td>
</tr>
<tr>
<td>13. UNIVERSITAET STUTTGART</td>
<td>48</td>
</tr>
<tr>
<td>14. CONSIGLIO NAZIONALE DELLE RICERCHE</td>
<td>43</td>
</tr>
<tr>
<td>15. ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE</td>
<td>43</td>
</tr>
<tr>
<td>16. UNIVERSIDAD POLITECNICA DE MADRID</td>
<td>42</td>
</tr>
<tr>
<td>17. INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS</td>
<td>41</td>
</tr>
<tr>
<td>18. KARLSRUHER INSTITUT FUER TECHNOLOGIE</td>
<td>39</td>
</tr>
<tr>
<td>19. PAUL SCHERRER INSTITUT</td>
<td>39</td>
</tr>
<tr>
<td>20. CENTRO RICERCHE FIAT S C P A</td>
<td>38</td>
</tr>
<tr>
<td>21. ENTE PER LE NUOVE TECNOLOGIE L’ENERGIA E L’AMBIENTE</td>
<td>38</td>
</tr>
<tr>
<td>22. THALES</td>
<td>37</td>
</tr>
<tr>
<td>23. AIT AUSTRIAN INSTITUTE OF TECHNOLOGY</td>
<td>36</td>
</tr>
<tr>
<td>24. KUNGLIGA TEKNISKA HOEGSKOLAN</td>
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<tr>
<td>25. CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS</td>
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</tr>
<tr>
<td>26. RHEINISCH WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN</td>
<td>34</td>
</tr>
<tr>
<td>27. D’APPOLONIA</td>
<td>33</td>
</tr>
<tr>
<td>28. TECHNISCHE UNIVERSITEIT EINDHOVEN</td>
<td>33</td>
</tr>
<tr>
<td>29. ACCIONA INFRAESTRUCTURAS</td>
<td>32</td>
</tr>
<tr>
<td>30. CENTRO DE INVESTIGACIONES ENERGETICAS MEDIOAMBIENTALES Y TECNOLOGICAS</td>
<td>32</td>
</tr>
</tbody>
</table>

**From CORDIS data, [http://www.researchranking.org/](http://www.researchranking.org/)**
The European Union
500 million people - 28 countries - a single market*

- 7% of the World's population
- 24% of world expenditure on research
- 32% of high-impact publications
- 32% of patent applications

*Free movement of people, goods, services and capital
WHAT IS HORIZON 2020?

- A €80 billion research and innovation funding program (2014 -2020)
- A response to economic crisis by investing in future jobs and growth
- It addresses people's concerns about their livelihoods, safety and environment
Horizon 2020

A single programme

• **Coupling research with innovation:** 'from lab to market'

• **Focus on societal challenges:** health, clean energy, transport, etc.

• **Open to participation:** companies, universities, institutes in EU and beyond
THREE KEY PILLARS

Excellent Science

Industrial leadership

Societal Challenges
Excellent science

• **European Research Council**
  Supporting top researchers from anywhere in the world to work in Europe

• **Future and Emerging Technologies**
  Supporting visionary thinking through collaborations between science and engineering

• **Marie Skłodowska-Curie actions**
  Providing opportunities for training and career development of individual researchers

• **Research infrastructures** – including e-infrastructure
  Ensuring access to world-class facilities
Industrial leadership

- **Leadership in enabling and industrial technologies**
  Emphasising key technologies in areas such as advanced manufacturing, microelectronics, nanotechnology, biotechnology, ICT and space
Societal challenges

• Health, demographic change and wellbeing
• Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy
• Secure, clean and efficient energy
• Smart, green and integrated transport
• Climate action, environment, resource efficiency and raw materials
• Inclusive, innovative and reflective societies
• Secure societies
HORIZON 2020: Open to the world
GENERAL OPENNESS

Horizon 2020 is open to participation of researchers from anywhere in the world, to:

- Extend the frontiers of scientific knowledge
- Tackle challenges that affect us all
- Make industries more competitive
Benefits of International research

- Sharing expertise
- Improve research quality
- Open up markets
- Access to knowledge
- Science diplomacy
- Higher global profile

Policy Research and Innovation
HORIZON 2020: Open to the world

1. Projects can include international partners

2. Targeted opening
   - In certain topics in calls for proposals, inclusion of international partners may be:
     a) encouraged
     or
     b) required

3. Coordinated calls
   - Used for specific actions (e.g. identified through joint steering committees). Paired calls, linked evaluations, two contracts, e.g.:
     a) EU-Japan R&D Cooperation in Net Futures
     b) Partnering with Brazil on advanced biofuels
Rules of participation

- Applicants from non-EU countries are eligible to take part in Horizon 2020 programmes, even as coordinator

- All proposals must meet certain minimum conditions (in Rules for Participation)
Rules of participation

Minimum Conditions:

- For standard (cooperative) research projects:
  - 3 participants from different Member States or associated countries
  - In addition, participants from any other country in the world can also be included

- For actions aimed at individuals, like European Research Council or Marie Skłodowska-Curie:
  - 1 researcher
  - 1 host institution
  - 1 project
Good to know:

- 3 types of competitive cooperation calls:
  - Research and Innovation Actions (RIA)
  - Innovation Actions (IA)
  - Coordination and support action (CSA)

- 3 criterias for evaluation: Excellence, Impact and Implementation (e.g. quality of consortium, complementarity and innovation drive)

- Direct eligible costs reimbursement rate (100-70%) + flat rate of 25% direct costs
Eligibility for funding

- Eligible for automatic funding*
- Provided for in the work programme
- Provided for by bilateral agreement
- Exceptionally, project by project, decided by the European Commission
- No EU Funding

*Legal entities established in
  - Member States
  - Associated Countries
  - Developing economies (Annex A)
  - European Interest Organisations
Automatically eligible non-EU applicants (ANNEX A):

Applicants based in any of the countries listed here are automatically eligible for funding under the Horizon 2020 budget:

Afghanistan, Albania, Algeria, American Samoa, Angola, Argentina, Armenia, Azerbaijan
Bangladesh, Belarus, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Burkina Faso, Burundi
Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, Colombia, Comoros, Congo (Democratic Republic), Congo (Republic), Costa Rica, Côte d'Ivoire, Cuba
Djibouti, Dominica, Dominican Republic
Ecuador, Egypt, El Salvador, Eritrea, Ethiopia
Fiji
Gabon, Gambia, Georgia, Ghana, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana
Haiti, Honduras
Indonesia, Iran, Iraq
Jamaica, Jordan
Kazakhstan, Kenya, Kiribati, Korea (Democratic Republic), Kosovo, Kyrgyz Republic
Lao, Lebanon, Lesotho, Liberia, Libya
Macedonia FYR, Madagascar, Malawi, Malaysia, Maldives, Mali, Marshall Islands, Mauritania, Mauritius, Micronesia, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar/Burma
Namibia, Nepal, Nicaragua, Niger, Nigeria
Pakistan, Palau, Palestine, Panama, Papua New Guinea, Paraguay, Peru, Philippines
Rwanda
Samoa, Sao Tome and Principe, Senegal, Serbia, Seychelles, Sierra Leone, Solomon Islands, Somalia, South Africa, South Sudan, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sudan, Suriname, Swaziland, Syrian Arab Republic
Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Tunisia, Turkey, Turkmenistan, Tuvalu
Uganda, Ukraine, Uruguay, Uzbekistan
Vanuatu, Venezuela, Vietnam
Yemen
Zambia, Zimbabwe
Not automatically eligible countries

Useful links:
http://ec.europa.eu/research/iscp/index.cfm
http://ec.europa.eu/research/iscp/index.cfm?pg=participate

EU delegation in your country:
http://eeas.europa.eu/delegations/
National Contact Points:
http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html
Options for taking part

- **Taking part in Project**
  - **Participant** (signs Grant Agreement)
    - With or without funding
  - **Third Party** (does not sign Grant Agreement)
    - Without (direct) funding
"Third Party" Option

Does not sign Grant Agreement but a private Agreement with one or more of the full participants (pre-existing relation)

The participant for which the third party carries out work must ensure that it is possible to exercise its IPR rights (e.g. Access)

The work to be carried out by the third party shall be identified in the grant agreement

Eligibility for funding? Similar conditions as if signing the Grant Agreement*

* See Slide 14
How does it work?

Find a relevant call

Find partner(s)

Submit a proposal

Get involved!
## Selected incoming calls in Horizon 2020

<table>
<thead>
<tr>
<th>Theme</th>
<th>Topic</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td><strong>LCE-22-2016</strong>: International Cooperation with Brazil on advanced biofuels</td>
<td>8 September 2016</td>
</tr>
<tr>
<td>LEIT</td>
<td><strong>BIOTEC-05-2017</strong>: Microbial platforms for CO2-reuse processes in t</td>
<td>27 October 2016</td>
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<td>LEIT</td>
<td><strong>BIOTEC-07-2017</strong>: New Plant Breeding Techniques (NPBT) in molecule</td>
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<td><strong>NMBP-14-2017</strong>: Regulatory Science Framework for assessment of ris</td>
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<td><strong>NMBP-20-2017</strong>: High-performance materials for optimizing carbon d</td>
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<td>Energy</td>
<td><strong>LCE-06-2017</strong>: New knowledge and Technologies</td>
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<td><strong>LCE-30-2017</strong>: Geological storage pilots</td>
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<td><strong>BIOTEC-08-2017</strong>: Support for enhancing and demonstrating the impa</td>
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<td>LEIT</td>
<td><strong>NMBP-16-2017</strong>: Mobilising the European nano-biomedical ecosystem</td>
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<td>Transport</td>
<td><strong>MG-1.2-2017</strong>: Reducing aviation noise</td>
<td>26 January 2017</td>
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<td>Transport</td>
<td><strong>MG-3.2-2017</strong>: Protection of all road users in crashes</td>
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<td>Transport</td>
<td><strong>MG-7.2-2017</strong>: Optimisation of transport infrastructure including</td>
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<td><strong>MG-7.3-2017</strong>: The Port of the future</td>
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<td>Food</td>
<td><strong>BG-11-2017</strong>: The effect of climate change on Arctic permafrost an</td>
<td>14 February 2017</td>
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<td>Food</td>
<td><strong>SFS-20-2017</strong>: Towards a science-based regionalisation of the Comm</td>
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<td>Food</td>
<td><strong>SFS-36-2017</strong>: Co-fund on &quot;One Health&quot; (zoonoses – emerging threat</td>
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<td>Food</td>
<td><strong>SFS-39-2017</strong>: How to tackle the childhood obesity epidemic?</td>
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<td>Food</td>
<td><strong>SFS-43-2017</strong>: Earth observation services for the monitoring of ag</td>
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<td>Food</td>
<td><strong>SFS-46-2017</strong>: Alternative production system to address anti-micro</td>
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<td>Food</td>
<td><strong>SFS-47-2017</strong>: Management of soil water resources in the EU and Ch</td>
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<td>Food</td>
<td><strong>SFS-48-2017</strong>: Resource-efficient urban agriculture for multiple b</td>
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<td>Food</td>
<td><strong>SFS-21-2016/2017</strong>: Advancing basic biological knowledge and impro</td>
<td>17 February 2017</td>
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<td>Food</td>
<td><strong>SFS-23-2016</strong>: Improving the technical performance of the Mediterr</td>
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<td>LEIT</td>
<td><strong>COMPET-4-2017</strong>: Scientific data exploitation</td>
<td>1 March 2017</td>
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<td><strong>COMPET-5-2017</strong>: Space Weather</td>
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<td>Environment</td>
<td><strong>SC5-07-2017</strong>: Coordinating and supporting research and innovation</td>
<td>7 March 2017</td>
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<td>Health</td>
<td><strong>SC1-PM-03-2017</strong>: Diagnostic characterisation of rare diseases</td>
<td>11 April 2017</td>
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<td>Health</td>
<td><strong>SC1-PM-04–2016</strong>: Networking and optimising the use of population</td>
<td>13 April 2017</td>
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<td><strong>ICT-31-2017</strong>: Micro- and nanoelectronic technologies</td>
<td>25 April 2017</td>
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<td>LEIT</td>
<td><strong>ICT-32-2017</strong>: Startup Europe for Growth and Innovation Radar</td>
<td>25 April 2017</td>
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<td>LEIT</td>
<td><strong>ICT-39-2016-2017</strong>: International partnership building in low and</td>
<td>25 April 2017</td>
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<td>Security</td>
<td><strong>SEC-17-BES-2017</strong>: Architectures and organizations, big data and d</td>
<td>24 August 2017</td>
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<td>SwafT</td>
<td><strong>SwafS-14-2017</strong>: A Linked-up Global World of RRI</td>
<td>30 August 2017</td>
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<td>SwafT</td>
<td><strong>SwafS-23-2017</strong>: Responsible Research and Innovation (RRI) in supp</td>
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<td>FET</td>
<td><strong>FETHPC-03-2017</strong>: Exascale HPC ecosystem development</td>
<td>26 October 2017</td>
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</table>


Further guidance: [https://incontact.etag.ee/topics](https://incontact.etag.ee/topics)


more than 3.5 billion €
Case: Brazil

H2020 EU-Brazil joint calls for Research and Innovation Action

<table>
<thead>
<tr>
<th>Call Code</th>
<th>Project Title</th>
<th>Funding (EUR)</th>
<th>Deadline</th>
<th>Funding Body</th>
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<tr>
<td>H2020-EUB-2017</td>
<td>EU-BRAZIL JOINT CALL (ICT)</td>
<td>8 Million</td>
<td>14-03-2017</td>
<td>RNP (Rede Nacional de Ensino e Pesquisa - Brazilian National Research and Education Network)</td>
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<td></td>
<td>• Cloud computing</td>
<td>2.5 M</td>
<td></td>
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<td>• IoT pilots</td>
<td>4.5 M</td>
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<td></td>
<td>• 5G networks</td>
<td>1 M</td>
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<tr>
<td>H2020-LCE-22-2016</td>
<td>International Cooperation with Brazil on advanced lignocellulosic biofuels</td>
<td>5 M</td>
<td>08-09-2016</td>
<td>FAPESP (São Paulo Research Foundation)</td>
</tr>
</tbody>
</table>

Existing local co-funding mechanisms in Brazil


Current priorities for EU-Brazil cooperation
Marine research and bio-economy, food security, sustainable agriculture; energy, particularly biofuel technologies; decarbonising the transport sector; nanotechnology; ICT, including cloud computing; nuclear fusion (Euratom-Fusion).

https://www.incobra.eu/
**Open consultation until 30/9**
Case: Mexico

H2020 EU-Mexico joint calls 2016-2017 specific calls closed!

Existing local co-funding mechanisms in Mexico,

- CONACYT-Horizon 2020 finances "project-by-project participation"
- 85%-70% of total costs
- All thematic areas

http://ec.europa.eu/research/iscp/index.cfm?pg=mexico

Current priorities for EU-Mexico cooperation
All areas are accepted, however the priority areas are:
Health (Diabetes, obesity and infectious diseases), Energy, Technologic Development (Advanced materials, nanotechnology, advanced manufactures, Information and Communication Technologies), Environment (Climate change, Water Management and Natural Disasters Prevention), Sustainable Development (Food Security, Urban Development) and Society.

http://conacyt.gob.mx/pci/index.php/eumex_innova1

**Networking events & info days**
Where to find more information and where to apply?

- **Horizon 2020 Participant Portal**
  Research and Innovation
  European Commission

- **Horizon 2020**
  European Commission

- **Incontact (NCP's network)**
Global partnerships for global challenges!

VTT Latin America contacts:
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Julie.Clavijo at vtt.fi
Thank you for your attention! Any questions?
lula.rosso at vtt.fi