The ECSEL JU
Electronic Components and Systems for European Leadership

Anton Chichkov
Programme Officer
Content

• ECSEL JU
• Combining Funding possibilities
• JU Dynamic before ECSEL
• 2014 Calls Outcome
• 2015 Calls Preparation Status
ECSEL Joint Undertaking In H2020

Autonomous Union body implementing a Joint Technology Initiative > 5B€

- Joint undertaking established on the basis of Article 187 TFEU
- Body entrusted with the implementation of a PPP, discharged by the European Parliament on the Council recommendation (derogation Art.209, Reg. 966/2012)
- Members:
  - EU (represented through the Commission) : H2020 contributions: 1.17 B€
  - ECSEL Participating States : envisaged contributions 1.17 B€
  - Private Members (Assoc. AENEAS, ARTEMIS-IA and EPoSS)

Administrative arrangements with the Public Authorities:

- EU / EC: yearly Delegation Act entrusting ECSEL with the budget execution
- ECSEL Participating States have three options:
  - Administer the national grants independently (exchanging information with ECSEL)
  - Entrust ECSEL with cost recognition but not with the payments of national grants
  - Entrust ECSEL with the cost recognition and the payment of national grants (transfer to ECSEL the national contributions)
• ECSEL JU has as among its objectives:
  – bridging the gap between research and exploitation
  – strengthening innovation capabilities and creating economic and employment growth

• The European contributions are directed for the most part towards Innovation Actions
Horizon 2020: ECSEL JU Governance

Union Body, Legal Personality, Implementing H2020

**Governing Board**
ECSEL Members
(Public Authorities, Private Members)

- **Strategic orientation, supervises implementation**
  Approves MultiAnnual Strategic Plan (MASP), Work Plan (WP), rules, membership, budget, staff, communication policy

**Executive Director**
Programme Office

- **Chief Executive, legal representation**
  Consolidates Multi Annual Strategic Plan and Financial Perspectives, elaborates budget proposal, Work Plan, executes calls; monitors projects

**Public Authorities Board**
European Commission,
ECSEL Participating States

- **Representatives of the Public Authorities**
  Approves call launching, call rules, allocates funding

**Private Members Board**
AENEAS, ARTEMIS-IA, EPoSS

- **Defines research agenda**
  Elaborates the multiannual strategic research and innovation agenda (MASRIA) and the annual research and innovation activities plan (RIAP)
• Adopt a **Multi Annual Strategic Plan**
• Every year, adopt a Work Plan to implement the MASP, including:
  – the topics of the call(s)
  – eligibility criteria and reimbursement rates (EU, national)
  – budgetary pre-commitments of the Public Authorities
• Launch Calls for proposals on the topics listed in the WP
  – A consortium must include at least three non-affiliated entities located in three different ECSEL Participating States
• Organize evaluation and selection of the proposals
• Establish JU Grant Agreements*, monitor execution:
  – Technical reports and reviews
  – Financial reports
  – Verification of costs eligibility (H2020 rules) and EU grants payment

* the National Funding Authorities establish separate National Grant Agreements and pay national grants after verifying cost eligibility according to national criteria
ECSEL JU Multi Annual Strategic Plan

Key Applications
- Smart Mobility
- Smart Society
- Smart Energy
- Smart Health
- Smart Production

Essential Capabilities
- Semicon Process Equipment Materials
- Design Technology
- Cyber-Physical Systems
- Smart Systems Integration
2011/12: ENIAC JU introduces “Pilot Line” Projects and selects for funding 14 proposals.
### ECSEL Calls 2014: Conclusion

**Eligible costs:** 708M€ (National), 650M€ (H2020)

<table>
<thead>
<tr>
<th></th>
<th>Call 2014-1: RIA</th>
<th>Call 2014-2: IA</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Grants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial budget</td>
<td>17.5</td>
<td>42.5</td>
<td>164.5</td>
</tr>
<tr>
<td>Awarded</td>
<td>39.8</td>
<td>104.0</td>
<td>143.7</td>
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<tr>
<td>EU Grants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial budget</td>
<td>40</td>
<td>95</td>
<td>135</td>
</tr>
<tr>
<td>Awarded</td>
<td>48.3</td>
<td>106.7</td>
<td>155.0</td>
</tr>
<tr>
<td><strong>TOTAL GRANTS</strong></td>
<td><strong>Awarded</strong></td>
<td><strong>210.7</strong></td>
<td><strong>298.7</strong></td>
</tr>
</tbody>
</table>

**Projects Selected for Funding**
- 3Ccar
- EXIST
- MANTIS
- OSIRIS
- RobustSense
- SWARMs
- ADMONT
- InForMed
- POWERBASE
- R2Power300
- SeNaTe
- WayToGo Fast

- **48 FPP submissions**
- **12 projects selected**
- **Success rate: 1 in 4**
ECSEL Projects Arising from the Calls 2014

Eligible Cost (national rules)

<table>
<thead>
<tr>
<th>Project</th>
<th>Eligible Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>3Car</td>
<td>58.6</td>
</tr>
<tr>
<td>EXIST</td>
<td>30.1</td>
</tr>
<tr>
<td>MANTIS</td>
<td>130.7</td>
</tr>
<tr>
<td>OSIRIS</td>
<td>4.4</td>
</tr>
<tr>
<td>RobustSENSE</td>
<td>11.0</td>
</tr>
<tr>
<td>SWARMS</td>
<td>15.3</td>
</tr>
<tr>
<td>ADMONT</td>
<td>46.8</td>
</tr>
<tr>
<td>InForMed</td>
<td>57.6</td>
</tr>
<tr>
<td>PowerBase</td>
<td>87.9</td>
</tr>
<tr>
<td>R2POWER300</td>
<td>9.0</td>
</tr>
<tr>
<td>SelNaTe</td>
<td>163.4</td>
</tr>
<tr>
<td>WAYTOGO FAST</td>
<td>193.3</td>
</tr>
</tbody>
</table>

ECSEL JU: a Mechanism Suitable for Combining Funding

- EUREKA Clusters
- JTIs /JUs
- Contractual PPPs
- FP7/H2020 Calls
- BBI, Clean Sky, FCH, IMI
- EeB, FoF, SPIRE, EGVI, Photonics, Robotics, HPC, 5G
- National Programmes
- CATRENE, ITEA3, EURIPIDES2, CELTIC+, EUROGIA+, ACQUEA,
- 5 FPPs in 2014
- Smart Specialization ESIF/ERDF
- Regions
- Member States

Each ECSEL JU action has at least two Grant Agreements:
- JU + Coordinator
- Beneficiary + National/Regional Funding Authority
Synergy H2020 – ESIF in ECSEL

• Working with the leaders: synergy excellence – convergence

• Basic condition: no double funding

• Detailed “how-to”: ECSEL Guide for Applicants 2015

• Case 1: An ECSEL project may include ESIF Funds to support:
  - One or more participants
  - One or more cost items
  - ESIF can be awarded in the year following the ECSEL call when all pre-conditions are met
  - Full Project Proposals need ESIF risk mitigation plan

• Case 2: ESIF can be used for subsequent actions or

• Case 3: ESIF can be used for parallel actions
The Worlds Electronics Systems Market and the ECSEL MASP

$1,488B

1. Smart Mobility
2. Smart Society
3. Smart Energy
4. Smart Health
5. Smart Production

- Semicon Process Equipment Materials
- Design Technology
- Cyber-Physical Systems
- Smart Systems Integration

Communications  Computer  Ind/Med/Other  Consumer  Automotive  Gov/Military


93  125  174  205  437  454

A. Chichkov, “The ECSEL JU” 2015 11 03
Mapping ECSEL MASP on Systems Market Segments

- **Society**
  - 21 Securing critical community assets
  - 22 Trusted components and systems

- **Energy**
  - 31 Sustainable energy generation and conversion
  - 32 Reducing energy consumption
  - 33 Efficient community energy management

- **Health**
  - 41 Home care and well-being
  - 42 Hospital and heuristic care
  - 43 Food processing and safety

- **Mobility**
  - 11 Resource-efficient transport
  - 12 Less congestion, more safety
  - 13 Next generation vehicles
  - 23 Next generation digital lifestyle

- **Prod. & Energy**
  - 51 Sustainable and integrated manufacturing
  - 52 Semiconductor manufacturing

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**2014 $1,488B**

- **Communications** 454 (31%)
- **Automotive** 125 (9%)
- **Consumer** 174 (12%)
- **Ind/Med/Other** 205 (14%)
- **Gov/Military** 93 (6%)

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After McClean Report 2015

A. Chichkov, “The ECSEL JU” 2015 11 03
Calls 2015 Preparation

• The calls for proposals will be published on the website of the ECSEL JU as well as on the EU Participant Portal for Horizon 2020 on 17 of March

• EU commitment:
  – TOTAL: 145M€ (-6.5% versus 2014)
  – The ECSEL Participating States provisional commitments already sufficient to launch the calls (way ahead of the previous years!)
    • Total anticipated to be commensurate with EU contributions
  – Public funding to participants shall comply with the applicable state aid rules
## 2015 EU Contributions as a Percentage of the H2020 Eligible Costs

<table>
<thead>
<tr>
<th>Research and Innovation Actions Centre of Gravity TRL 3-4</th>
<th>Innovation Actions Centre of Gravity TRL 5-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Industry</td>
<td>Large Industry</td>
</tr>
<tr>
<td>25%</td>
<td>15%</td>
</tr>
<tr>
<td>SME</td>
<td>SME</td>
</tr>
<tr>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td>University/RTO</td>
<td>University/RTO</td>
</tr>
<tr>
<td>40%</td>
<td>40%</td>
</tr>
</tbody>
</table>

ECSEL Participating States shall provide commensurate contributions awarded according to the national criteria.
## Planning Calls 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 March</td>
<td>GB decision on WP2015</td>
</tr>
<tr>
<td>17 March</td>
<td>Call launch</td>
</tr>
<tr>
<td>12 May</td>
<td>Deadline PO</td>
</tr>
<tr>
<td>29 May</td>
<td>End PO evaluation</td>
</tr>
<tr>
<td>Mid June</td>
<td>Information to the applicants of the evaluation results</td>
</tr>
<tr>
<td>8 September</td>
<td>Deadline FPP</td>
</tr>
<tr>
<td>28/9 – 2/10</td>
<td>Evaluation</td>
</tr>
<tr>
<td>October</td>
<td>Decision on selection of projects for Change Request procedure</td>
</tr>
<tr>
<td>November</td>
<td>Change Request procedure (CRP)</td>
</tr>
<tr>
<td>December</td>
<td>Funding decision</td>
</tr>
</tbody>
</table>
Call 2015 - 1 Passport

- **Call identifier:**
  - H2020-ECSEL-2015-1-RIA-two-stage
- **Call Budget 50M€
- **Call Topics**
  - ECSEL-01-2015 Smart Mobility
  - ECSEL-02-2015 Smart Society
  - ECSEL-03-2015 Smart Energy
  - ECSEL-04-2015 Smart Health
  - ECSEL-05-2015 Smart production
  - ECSEL-06-2015 Semiconductor Process, Equipment and Materials
  - ECSEL-07-2015 Design Technology
  - ECSEL-08-2015 Cyber-physical Systems
  - ECSEL-09-2015 Smart Systems Integration
Call 2015 - 2 Passport

• Call identifier:
  – H2020-ECSEL-2015-2-IA-two-stage
• Call Budget 95M€
• Call Topics
  – ECSEL-10-2015 Smart Mobility
  – ECSEL-11-2015 Smart Society
  – ECSEL-12-2015 Smart Energy
  – ECSEL-13-2015 Smart Health
  – ECSEL-14-2015 Smart production
  – ECSEL-16-2015 Design Technology
  – ECSEL-17-2015 Cyber-physical Systems
  – ECSEL-18-2015 Smart Systems Integration
Admissibility & Eligibility check

• To be considered admissible, a proposal shall be:
  – submitted in the Electronic Submission System before the deadline
  – Be complete (containing all the requested administrative data, proposal description, etc. and any supporting document specified in the call).

• To be considered eligible,
  – the proposal shall correspond to the standard and specific eligibility criteria and conditions as set in the work plan

• Eligible POs shall be made available to the experts, to appointed observers, and to the public authorities potentially involved in the funding of the proposal
Calls 2015 PO Stage

• First Stage PO submission
  – PO phase helps to align / improve proposals
  – This stage is mandatory and gating
  – Minimum blocking requirements
  – Provide as much information as available
    • Partners
    • Budget
  – This stage each proposal will be evaluated by a minimum of two experts
  – States may provide comments on the potential eligibility of their applicants against any predetermined national criteria as published with the call.
  – Applicants will be informed of the results of the PO stage of the evaluation process and if successful, invited to submit the FPP
Calls 2015 FPP Stage

• Second Stage FPP submission
  – This stage is evaluated by independent experts
  – The FPP must be consistent with the PO proposal and may not differ substantially
  – In case of equal score, the proposal with higher impact score will be ranked higher – for both RIA and IA
  – Proposals of any size are welcome, and will be judged on their merit against published criteria (H2020: excellence, impact, implementation)
  – The PAB expects ‘compelling motivations’ for proposals requesting EU contributions approaching or exceeding 1/4 (RIA), respectively 1/3 (IA) of the EU budget available for the call
  – On the basis of the draft final ranking list and the draft allocation of funding, the PAB shall decide on the final ranking of proposals
• The evaluation process uses independent experts and shall respect the principles
  – excellence, transparency, fairness & impartiality, efficiency & speed, ethics & security and confidentiality.

• Criteria
  – Excellence,
  – Impact,
  – Quality and efficiency of the implementation
## Evaluation Criteria

### RESEARCH AND INNOVATION ACTION

<table>
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<tr>
<th>Criteria</th>
<th>Range</th>
<th>Weight</th>
<th>Threshold</th>
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<tbody>
<tr>
<td>Excellence</td>
<td>0-5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Impact</td>
<td>0-5</td>
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<td>1</td>
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<tr>
<td>Q and E Implement.</td>
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<td>na</td>
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<tr>
<td>Total</td>
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### INNOVATION ACTION

<table>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Impact</td>
<td>0-5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Q and E Implement.</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Total</td>
<td>0-10</td>
<td>3</td>
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### FULL PROPOSAL

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Range</th>
<th>Weight</th>
<th>Threshold</th>
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</thead>
<tbody>
<tr>
<td>Excellence</td>
<td>0-5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Impact</td>
<td>0-5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Q and E Implement.</td>
<td>0-5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>0-15</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Range</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Excellence</td>
<td>0-5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Impact</td>
<td>0-5</td>
<td>1.5 (**)</td>
<td>3 (*)</td>
</tr>
<tr>
<td>Q and E Implement.</td>
<td>0-5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>0-15</td>
<td>10 (*)</td>
<td></td>
</tr>
</tbody>
</table>

(*) threshold applies to unweight score; (**) the weight is only used to establish the ranking of the proposals
Guidance Regarding Proposal Size

- The Guide for Applicants is clarifying the expectations.
- Proposals of any size are welcome, and will be judged on their merit against published criteria (H2020: excellence, impact, implementation).
- The PAB expects ‘compelling motivations’ for proposals requesting EU contributions approaching or exceeding 1/4 (RIA), respectively 1/3 (IA) of the EU budget available for the call.
Make the Smarts Systems Integration very visible in the ECSEL JU Calls 2015

- Smart Systems is the top of the food chain of the Electronic Components and Systems market
- ECSEL JU expects strong participation from the smart system integration community
- Propose persuasive (must do) projects in the Calls of 2015
Thank you for your attention!