

JUMPING JIVE WP3: *New Partnerships*



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JUMPING JIVE final meeting
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JIMPING JIVE WP3 scope



- **Main focus – enhancement of JIV-ERIC within EVN**
 - Key words: globalisation [of VLBI], new partnerships & SKA [@VLBI]
- **Incentives for joining the [EVN] VLBI “club” & JIV-ERIC**
 - Involvement in cutting-edge research
 - Direct access to intellectual property of the global science endeavor
 - Joint exploitation of the global VLBI potential for national sci priorities
 - *Plus practical benefits of being ERIC member (e.g., VAT exemption)*
 - Joint exploitation of the educational and PO potential of VLBI
- **Implementation of WP3 in three tiers:**
 - Tier 1 – experienced and active VLBI centres – on the way to JIV-ERIC
 - Tier 2 – “EVN-unaffiliated” user groups and facilities;
 - Tier 3 – ”seed” VLBI activities with new groups (in Europe and beyond)

WP3 Tier 1 “renovation”



- **NAOC CAS (China), JIVE associate since 2005**

- Participation in JIV-ERIC on the basis of 2-3-year-long MoA's
- The latest MoA for 2019-2021 signed in 2019
- New items of collaboration – “exponential” developments in China



- **Latvia – VUC-VIRAC, JIV-ERIC member**



- New Minister, new management at the Ministry since 2019
- Several changes of administration at VIRAC over the past 6 years
- Need for continuing persistent “coaching”
 - *Collaboration with EVN and JIVE – a major “ingredient” for involvement in JIV-ERIC*
 - *Participation in BAASP-2019,-21*
 - *VIRAC Advisory Board (Gurvits)*
 - *Need for a strong case in the national science agenda*
 - *Educational component needs further support*



WP3 Tier 1: JIV-ERIC membership



- **INAF (Italy), founding JIVE partner since 1993**
 - Until 2020: participation in JIV-ERIC on the basis of biennial MoA's
 - Since 2021: Italy – a member of JIV-ERIC
 - New items of collaboration - joint work on advanced projects (e.g., THEZA)



First meeting of the EVN CBD, 1985



Lucia Padrielli, 1990s

History of radio astronomy in Italy:

<https://info.ira.inaf.it/wp-content/uploads/2021/07/Storia-IRA-EnglishVersion1.pdf>

WP3 implementation: Tier 1



- **Objectives:**
 - Facilitating joint science, R&D, educational and PO activities with organisations/countries already collaborating with EVN and JIVE;
 - preparation for admission of the Tier 1 countries in JIV-ERIC.
- **Partners:** countries and organisations already involved in various ways into EVN, JIVE and/or JIVE-related FP7 or other joint activities
 - *Aalto University and Finnish Geospatial Inst., FI*
 - *Search for a strong sci case; space science applications most attractive*
 - *Center for Astrophysics, N. Copernicus U, Toruń, PL*
 - *New leadership at the TCfA*
 - *Respective ministries in FI and PL approached by NWO, July 2018*
 - *consultations ongoing;*
 - *In both countries, national “road maps” have VLBI as important components (2021)*
 - *Clearly spelled out position of EVN CBD on JIV-ERIC membership is very important!*
 - *Since 2021: representatives of respective organisations are observers at JIVE Council*



WP3: “Tier 1.5”, Thailand



- **New radio astronomy facility – a 40-m telescope**
 - Managed by National Astronomical Research Institute of Thailand (NARIT)
 - 40-m radio telescope (a copy of Yebes), TNRT, under construction
 - *Major construction to be completed in 2020*
 - Intention to become an EVN member
 - NARIT & JIVE MoA signed in Nov 2019
 - NARIT association with JIV-RIC to commence once the telescope operates



WP3 implementation: Tier 2



- **Objectives:**

- ground-work for establishing/broadening of involvement of scientists, engineers and students from Tier 2 countries/organisations in VLBI activities

- **Partners:** organisations involved in VLBI activities consistent with EVN/JIVE mission but not members of either

- Konkoly Observatory, Budapest, HU

- *one of the most active VLBI user groups unaffiliated with EVN*
- *official partner (MoU, 2019) on JUICE VLBI (PRIDE)*



- Institute of Applied Astronomy, St.Petersburg, RU

- *major EVN partner*
- *Intertest in strtengthening VLBI sci collaboration with JIVE*



- Auckland U of Technology, Auckland, NZ

- *JIVE-AUT MoU (2010+) implementation underway*
- *Interest in Global VLBI Alliance (GVA) cooperation*



- University of Tasmania, AU

- *strong interest in GVA*
- *official partner (MoU, 2019) on JUICE VLBI (PRIDE); very helpful in COVID times*



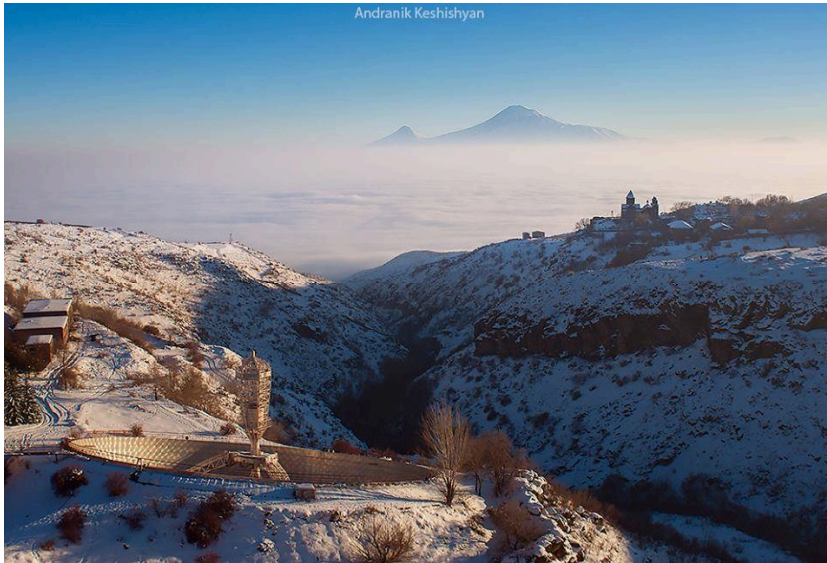
WP3 implementation: Tier 3



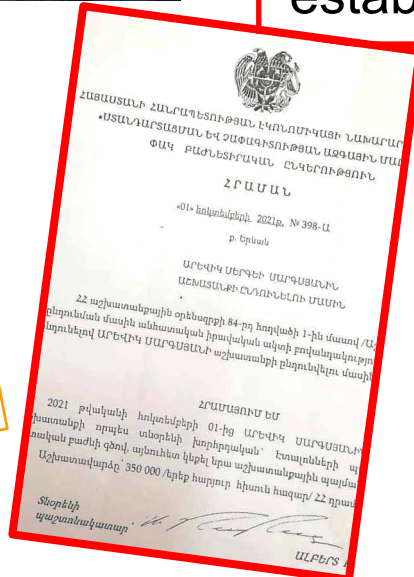
- **Objectives:**
 - assistance in creating a case for VLBI research and R&D
 - assistance in national educational and PO activities
- **Partners:** countries/organisations with declared interest in radio astronomy and VLBI, but without established facilities and/or sizable user groups. Examples:
 - Santiago University (Aviero) et al., PT
 - *Involvement in SKA, SKA-related technology*
 - *VLBI antenna(s) on Azores*
 - Herouni Centre, ROT-54/2.6 telescope, AM
 - *Assistance in resurrection of the existing 54-m radio telescope*
 - Hellenic radio telescope, Thermopilae, GR
 - *Transfer of the satcomm 32-m antenna initiated/supported*
 - National Space Facilities & Control Center, Kyiv - Zolochiv, UA
 - *operational 32-m deep space comm antenna*
 - *a well-established radio astronomy school in Kharkiv is assisting*



Tier 3, Herouni radio telescope

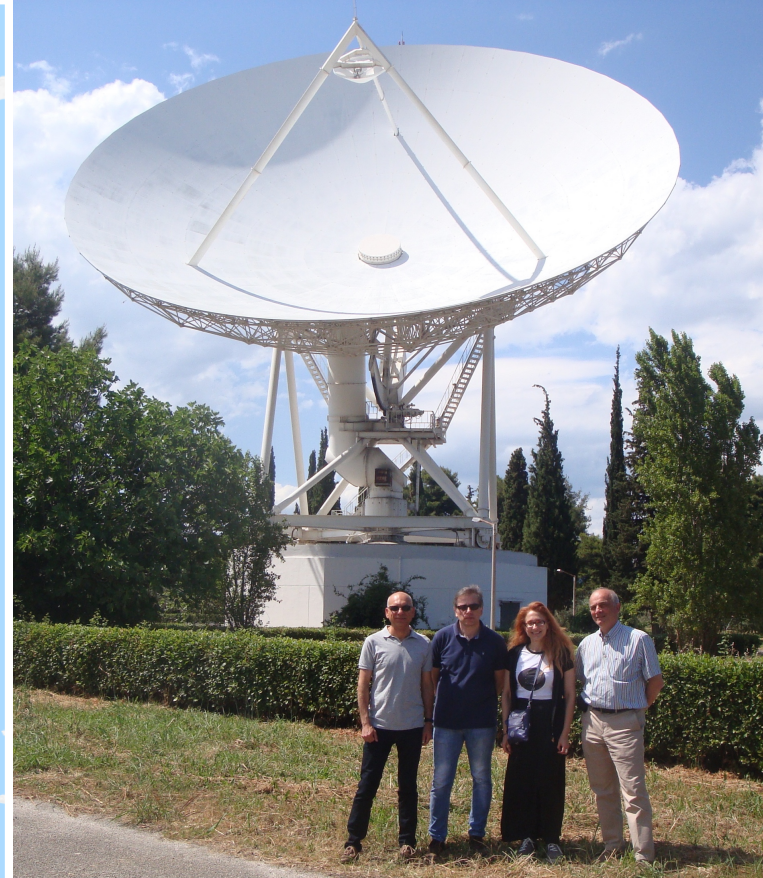
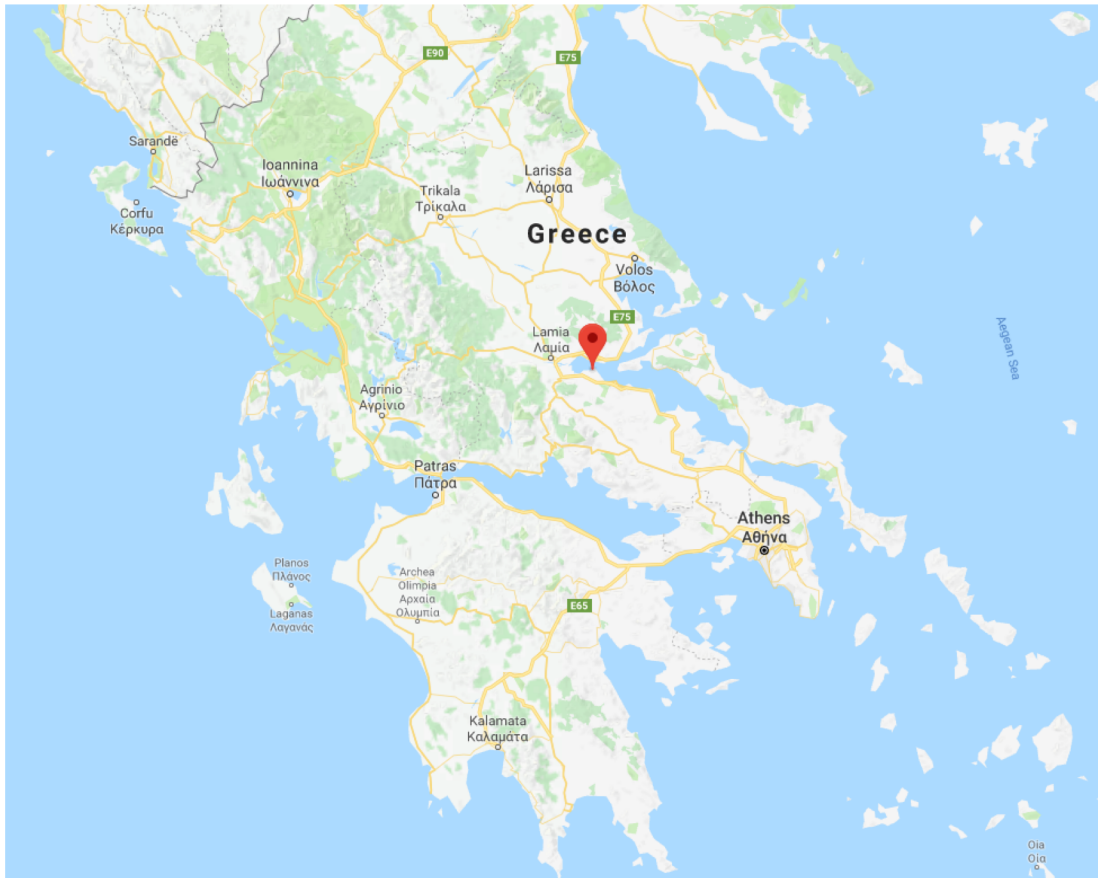


- Joint action of JJ WP3 and WP5 (+ EVN TOG)
- Site visit in March 2018
- International advisory board under formation (since Dec 2019)
- 54 m “Arecibo-like” radio reflector for dm-mm wavelengths
- **Breaking news**: Herouni Center established on 1 October 2021



EC support for partnership to be invoked

Tier 3, Hellenic radio telescope



- 32 m Hitachi satcomm antenna
- Joint action by JJ WP5 and WP3
- Site visit in May 2019 by P. de Vicente and L. Gurvits (repor available)
- Formation of a national university alliance underway

Tier 3, Zolochiv radio telescope



Zolochiv 32-m antenna
February 2019



Workshop at the Zolochiv site, Oct 2019
WP3 represented by F. Colomer

- 32 m deep space comm antenna in good electro-mechanical state
- Joint action of JJ WP
- Interest to join EVN, eventually – JIV-ERIC
- Unclear (national) budgetary arrangements
- Important “tutoring” by the Radio Astronomy Institute in Kharkiv (O.Ulyanov et al.)

JJ WP3 final reflections

- The formal goals of WP3 achieved (albeit with some deviations from the original activities contents)
 - ... a good sign of flexibility!
 - 25 organisations in 23 countries engaged (see D3.3), more than planned
- New partnerships are crucial for development of EVN and JIV-ERIC
 - ... “soft [facilitating] money” come and go, the tasks remain...
- JUMPING JIVE is a good example of supporting the natural tasks
- ERICs should be eligible for continuing support of WP3-style tasks
 - an issue for the ERIC Forum?
- WP3-like activities will continue in synergies with WP7, WP5 and others
- Need for a better and unambiguously formulated administrative requirements:
 - WP3 is essentially about networking; not suitable for working hours accounting
 - Personal contacts are essential