

Best practices in space applications: examples from Hesse

cesah supports start-ups on behalf of ESA in using space technology for non space applications

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**business
incubation
centre**
Darmstadt

The Centre for Satellite Navigation Hesse

- **cesah** is an incubation centre for Satellite Navigation applications and since 2014 also the broker within the ESA TTN responsible for Germany.
- **cesah** is a joint initiative of the European Space Agency and the Region of Hesse, founded in 2006
- Located directly next to the European Satellite Operations Centre ESOC (Darmstadt).
- The centre supports the development of business ideas and start-up companies in the Satellite Navigation domain, as well as technology transfer.
- The ESA BIC Darmstadt is managed by cesah, surrounded by 100 high-tech companies in the Technology and Innovation Centre TIZ.



Wissenschaftsstadt
Darmstadt



TECHNISCHE
UNIVERSITÄT
DARMSTADT



h_da
HOCHSCHULE DARMSTADT
UNIVERSITY OF APPLIED SCIENCES



ESA BUSINESS INCUBATION CENTRES



ESA Navigation Facility at ESOC

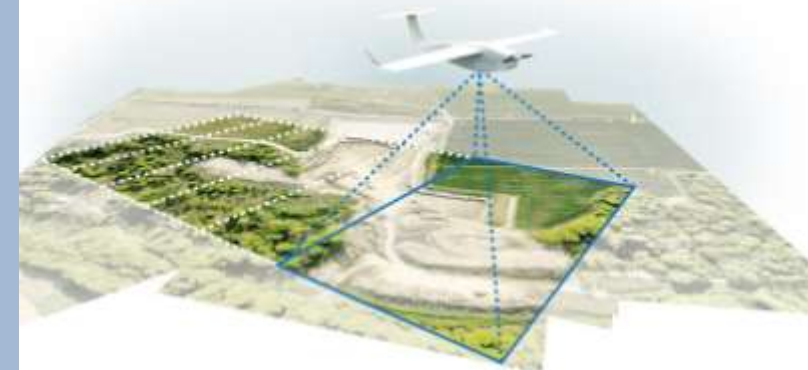
- More than 20 years of experience in the processing and enhancement of GPS and GLONASS data – recently also Galileo, Beidou
- One of the few centres in the world for high precision position determination in support of scientific applications – on ground at mm level
- Analysis Centre and key technical support to the International GNSS Service (IGS)
- ESOC contributes significantly to Galileo and EGNOS by provision of technologies & services.
- Experts from the ESA Navigation Support Office at ESOC provide valuable Engineering Support to Techno-Starters at ESA BIC Darmstadt.



Techno-Starters at ESA BIC Darmstadt



- etamax space GmbH
- ANLU Navigation GmbH
- Samango GmbH
- Punchbyte e.K.
- IPAYMO
- IP Wetter
- MAVinci UG
- LatitudeN GmbH
- ALL4IP GmbH & Co. KG
- Mobile Life UG
- PosiTim UG
- INTEND Services
- finc AG
- benjamin systems
- wer_denkt_was GmbH
- embia GmbH
- Solenix Deutschland GmbH
- EM Electronic Machines
- woistwer24
- Socratec Engineering and Services UG
- GPASS
- MapCase GmbH
- Treevolution.de GmbH
- L-One Systems GmbH
- TaleTekk UG
- Isofleet GmbH
- NavQuest UG
- SellNews GmbH
- GeoMon
- Free-Linked GmbH
- easyVineyard
- ebuggy GmbH
- Potentailspaces
- Datarella
- Notificatio UG
- TrACTICS
- SENSOVO
- moove-in
- Newcon
- EMTech
- graphmasters
- real trip
- deeliva
- MockUpStudio
- IACTA



At Trade Fairs with our Start-Ups



InterGeo 2013

8. to 10. October in Essen, Germany
Joint stand of all ESA BICs, SatNav-Forum and GSA,
organised and managed by cesah



Winner of the **ESNC 2010** in Hessen and the national **Greentec Award 2013** in the category mobility



1 You are driver or passenger

2 As driver, you tell us your destination

3 As passenger, you tell us where you want to go

4 flinc automatically brings you together

5 You move together and save money



March 2011



March 2012



March 2013

Mid 2014:
250.000 users
16 staff

Partnernetzwerk:

NAVIGON



Robert Bosch GmbH



DriveNow



T-City Friedrichshafen



NAVTEQ



EcoLibro GmbH



Europäischer Fonds für regionale Entwicklung



cesah



ESA Business Incubation Centre Darmstadt



campushunter.de



...and more than 80.000 users that create daily ride offers and ride searches with flinc

Databases



finc uses city data provided by the free geographic database Geonames (www.geonames.org)

Awards



European Satellite Navigation Competition



EUROPEAN
SATELLITE NAVIGATION
COMPETITION 2014
Hesse Challenge

WIN PRIZES AND GET YOUR BUSINESS OFF THE GROUND
Submit your service, product, or business innovation that
uses satellite navigation in everyday life



SIGN UP 1 April – 30 June 2014 at
www.hesse.galileo-masters.eu



The overall international winner receives **20,000 EUR**, the regional winner in Hessen receives **3,000 EUR** from Hessen-IT and support through cesah, who organises the regional challenge continuously since 2006 and participates in the international & ESA juries.

Global Navigation meets Geoinformation



- Conference organised by cesah on a yearly basis at ESOC, with further regional partners.
- Participants come from industry, academia and public authorities/politics.
- Tradition since 2007 with growing participation, e.g. 240 participants on 1st April 2014. Conference has gained national reputation in the meantime.
- Presentations on GI and GNSS related topics including Galileo & EGNOS
- Podium discussions with subject matter experts from the application domains, matching between space and application domain has already led to projects (e.g. aviation, forestry, farming)
- Kick-off event for “Hesse Challenge” within ESNC

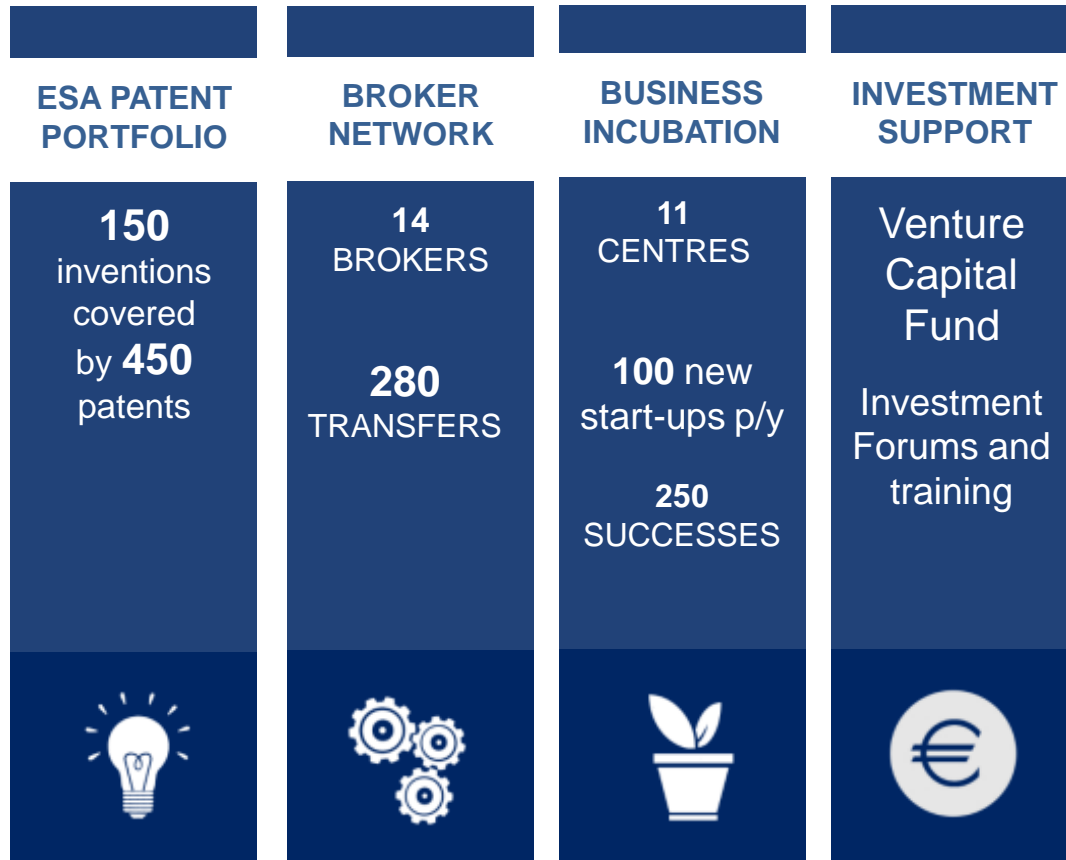
Sustainability – long-term contract signed



- cesah manages the ESA BIC Darmstadt continuously since 2007 and has so far supported 47 companies (150 jobs).
 - Contract signature event at ESOC on 11. September 2013 for an extension with ESA to run the ESA BIC Darmstadt for another 6 years from 2014 to 2019
 - Funding secured for start-ups and for running the centre itself. Funding by ESA, DLR, State of Hessen and City of Darmstadt
 - Provision of in-kind technical support to start-ups by ESOC (e.g. ESA Navigation Facility).
- Support of 60 further start-ups in total until 2019 (50 TEUR + 80h support plus 50 TEUR loan from local bank for each start-up)

ESA BROKER NETWORK





- Since early 2014 cesah is the ESA TTN broker for Germany
- BIC, TTN, IAP Ambassadors are being integrated under a common umbrella called

ESA space solutions

- Common database and webportal under preparation, to improve data exchange among BICs, ambassadors, brokers and external parties



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