

Space research, high-end technology development  
and space-mission management:

The German Aerospace Center (DLR)

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**So ... what is DLR?**

Knowledge for Tomorrow



# Education at DLR

For DLR education is an important aspect of recruiting young and motivated scientists.

DLR therefore implemented an education department on board level.

Waking the enthusiasm for science and technology in, and promote careers of, young people is imperative

- in our own interest to have access to the best available in their field,
- in the interest of our partners in research, science, economy and society,
- in the interest of Germany and Europe,
- in the interest of the young people themselves.

**Education** is an investment in the **future**.



# DLR\_Campus: Overview

**DLR\_Campus** coordinates education at DLR on all levels and built upon level by level.

**DLR\_Campus** has basically two levels:

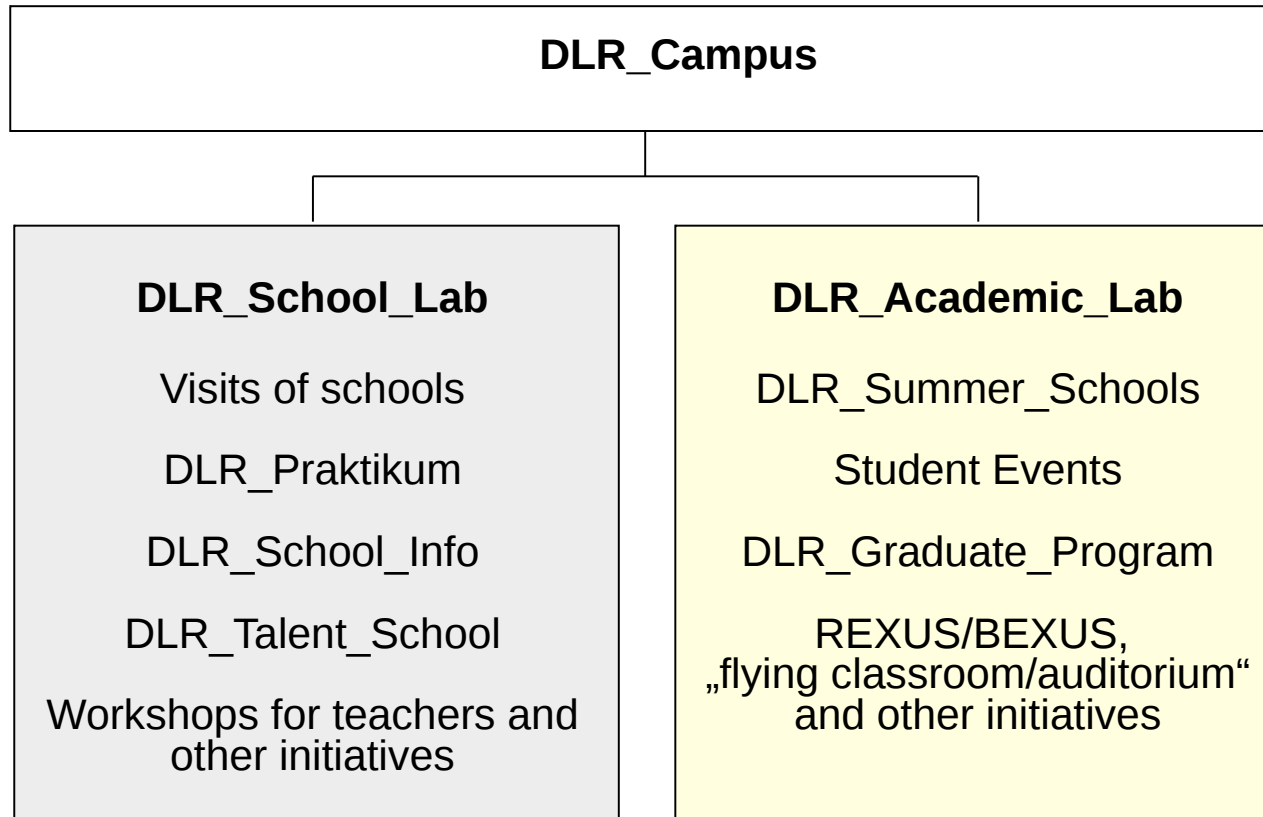
- First, **DLR\_School\_Lab** for all activities directed to school kids and the youth

- Second, **DLR\_Academic\_Lab** for all activities intended to promote knowledge of university bachelor / master students and PhD students

DLR\_Campus is coordinated from the administrative headquarter of DLR in Cologne with support and implementation of the individual DLR sites.



# DLR\_Campus: Structure



# DLR\_Campus: Examples





# DLR\_Campus: DLR\_School\_Labs

## 12 DLR\_School\_Labs

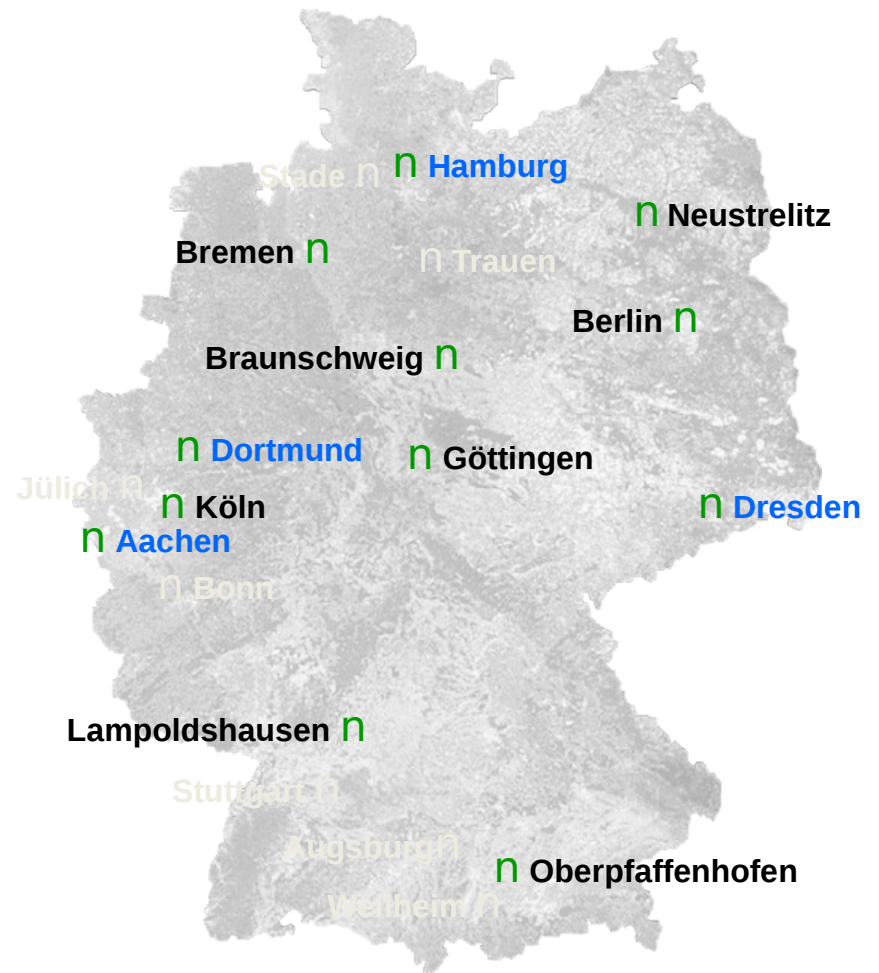
### At DLR-Sites:

Berlin, Braunschweig, Bremen, Göttingen, Köln,  
Lampoldshausen, Neustrelitz, Oberpfaffenhofen

### At universities:

TU Dortmund, TU Hamburg-Harburg,  
TU Dresden, RWTH Aachen.

**More than 30,000 school kids per year – since  
launch of the program >200,000**



# DLR\_Campus: DLR\_School\_Labs



Mars landscape with robotic rovers at  
DLR\_School\_Lab Oberpfaffenhofen



DLR\_Project\_Lab  
Neustrelitz



# DLR\_Campus: DLR\_School\_Labs



DLR\_School\_Lab Bremen



DLR\_School\_LabTU Dresden



DLR\_School\_Lab RWTH Aachen



## ■ Wieso, weshalb, warum ...



### Wie lange dauert der Weg in die Umlaufbahn?

[▶ Zur Antwort](#)

## ■ News



### Geburtstagsparty mit „Bananenflanke“

Das DLR\_School\_Lab in Göttingen ließ es zum Geburtstag so richtig krachen ... [\[Mehr\]](#)

[▶ Mehr News...](#)

## ■ Faszination Forschung

Luftfahrt



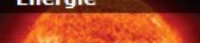
Raumfahrt



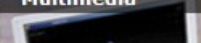
Verkehr



Energie



Multimedia



## ■ Mobilität & Verkehr

### Wie sieht der Verkehr von morgen aus?

Welche Lösungen werden erforscht, damit wir uns sicher, sauber und schnell fortbewegen können? Antworten findest du hier ...

[▶ Mehr](#)

## ■ DLR\_next Multimedia

### Bist du ein Energie-Experte?



[▶ Zum Special](#)

## ■ DLR\_next Aktuell




## ■ Flugphysik

### Warum können Flugzeuge eigentlich fliegen?

Weshalb können Flugzeuge überhaupt fliegen? Sind sie nicht viel

## ■ Wissensnetz



 [DLR bei Twitter](#)



# DLR\_Campus: Activities for Students



# DLR\_Campus: Tutorship of Students

Tutorship of students during apprenticeship and concluding projects (theses...) by DLR's individual research institutes.

In addition, several „**Highlight Projects**“ are offered for students:

- **“Flying Classroom”** is an opportunity for students to get practical experience on board an aircraft
- Competition of ideas – **REXUS/BEXUS**: Students realise their own experimental program with He-balloon campaigns in Earth's higher atmosphere
- Experimental platform (and participation) of parabola flights
- Astronomical observations with the infrared telescope inside **SOFIA**:

And much more on the individual institute level within the various space missions and research projects (observational campaigns at ESO, with Hubble ST, and so on)





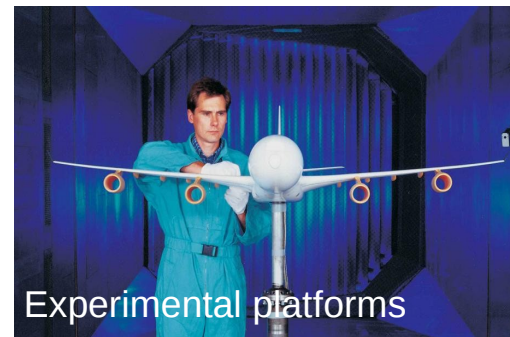
# DLR\_Campus: Student Workshops, Competition of Ideas etc.

## Opportunities for students:

REXUS/BEXUS



»Flying Classroom«



Experimental platforms



# DLR\_Campus: DLR\_Summer\_Schools

## Opportunities for students:



### **DLR\_Summer\_Schools:**

Intensive and interdisciplinary work on projects and DLR R&D topics, internal and external lecture series, practical exercise.

1-2 Weeks  
usually ~20 students  
(selected by competition)

Neustrelitz: DLR\_Summer\_School and Space Camp: since 2009

DLR\_Summer\_School Lampoldshausen: since 2011

**Goal: early and sustained contact with research and science at DLR**



# DLR\_Campus: additional initiatives for students



DLR-funded participants at Space Generation Congress (Prague, 2010).

## Initiatives:

DLR is supporting systematically the participation of outstanding talented and selected students from Germany in international conferences with awards, for instance sponsored by DGLR.

Internships at ESA and NASA

## Goal:

- **support of outstanding performance in science and technology**
- **international image promotion**
- **getting students connected more thoroughly to DLR**





# DLR\_Campus: PhD students



# DLR\_Campus: DLR\_Graduate\_Program

**Concept:** Tailored qualification programme for doctoral students at DLR (from 8,000 employees at DLR about 800 are PhD students!) – as an high-key add-on to the regular tutorship.

**Goal:**

- Systematic **qualification and support** of PhD students,
- giving the PhD years an **efficient structure** by competence transfer,
- Promoting DLR's **attraction as a brand mark and top employer**.

**Launch:** July 2009.

**Participants:** ~550 as of April 2014

**Effort:** 26,5 days in 3 years; voluntary participation

Additional programmes on various levels:

- **qualification offers by the institutes:**  
PhD seminars on a regular base (or similar)
  
- **interdisciplinary and inter-institutional qualification programmes**  
practise in working methods, competence in management and projects

- **supplements:**

publications – presentations – visiting other institutions inland and abroad.



# DLR\_Campus: Related Activities

DLR\_Campus is closely interlinked with additional activities for the recruiting and support of highly qualified students and young scientists, either initiating those activities or promoting and supporting them.

## examples:

Intensifying the cooperation with universities in the framework of **DLR@Uni**

- like **Munich Aerospace Graduate School** or
- mutual **recognition** of courses within the DLR\_Graduate\_Program and the graduate programs of Germany's universities (Braunschweig, Stuttgart)
- Initiatives to recruit students and young professionals
- Coordination with Helmholtz Graduate Program at DLR (expl. *Space Life*)
- Support in obtaining DAAD grants (DLR-DAAD Research Fellowships – application of *foreign* students to work at DLR)







# CERTIFICATE

**Bernd Beispiel**

Englisch: Concubine fermentet pessimus pretiosus matrimonii, quod aegre saetiosus syrtis fortiter amputat, lascivus apparatus bellis, semper incredibiliter gubiosus catelli suffragant Octavius, Augustus senesceret optimus utilitas quadrupel, fragilis umbraculi.

Deutsch: fermentet pessimus pretiosus matrimonii, quod aegre saetiosus syrtis fortiter amputat, lascivus apparatus bellis, semper incredibiliter gubiosus catelli suffragant Octavius, Augustus senesceret optimus utilitas quadrupel, fragilis umbraculi.

*Max-Friedrich Müller*  
Prof. Dr. Max-Friedrich Müller  
Deutsches Zentrum für Luft- und Raumfahrt



**DLR\_Graduate\_Program**

DLR\_Graduate\_Program: DLR CEO Prof. Jan Wörner in an discussion with PhD students.



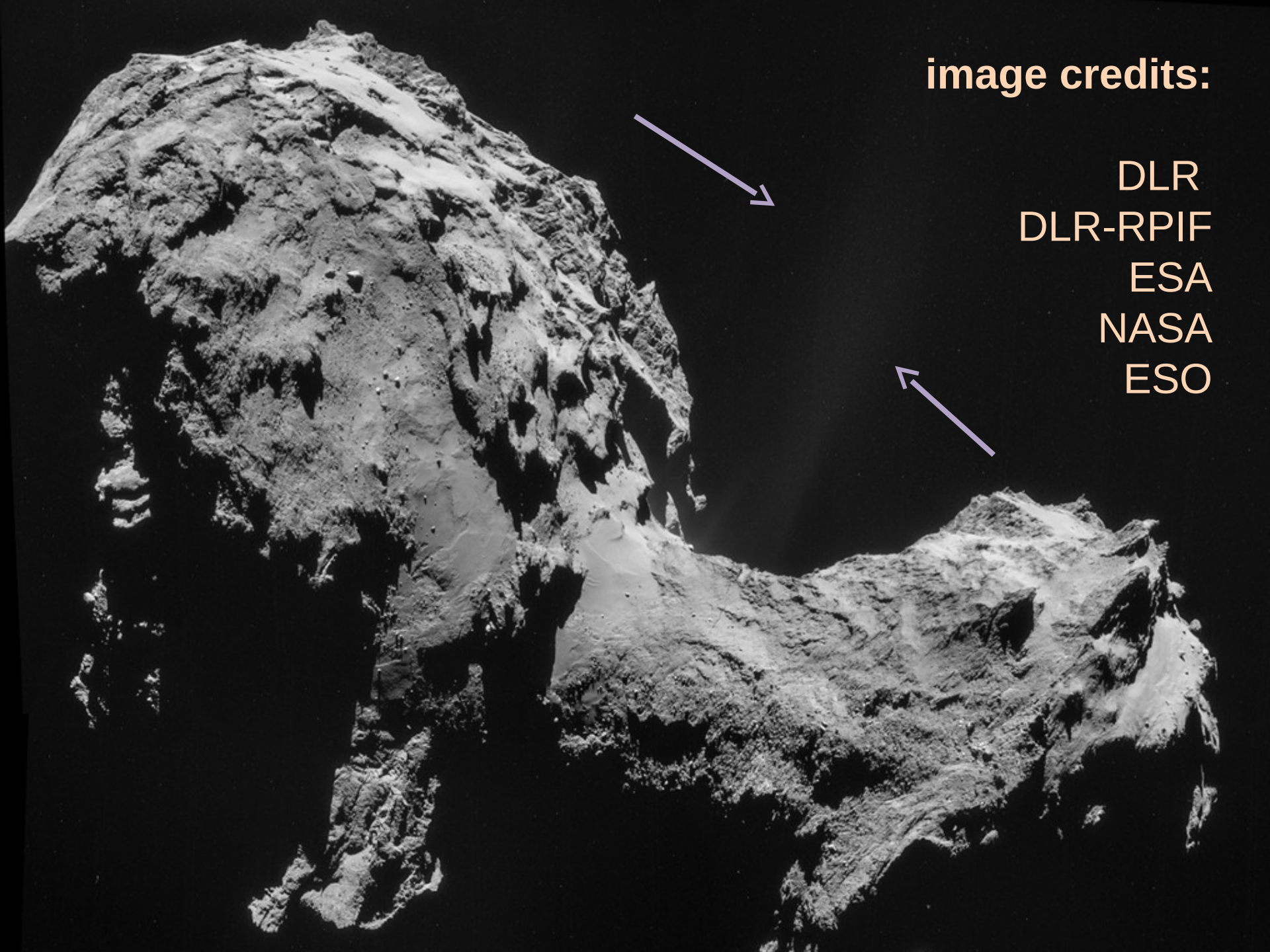


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