QUESTIONNAIRE

In the frame of the AirTN FP7 ERA-Net project, it is proposed to make a survey of all European civil aeronautic facilities and to introduce them in a "wiki" like web site. The result will be a unique inventory of all relevant research facilities which will be accessible to the European Commission and ACARE stakeholders.
The practices with respect of access, investments and support will help to upgrade existing key facilities, to avoid duplication for future facilities and to identify the domains where European community has a lack of facilities.

Identification of the installation/facility :

Country:	Switzerland
Location (city):	Emmen
Name of the facility:	RUAG Large Wind Tunnel Emmen (LWTE)
Date of construction or of acquisition or of main refurbishment:	
	Construction: 1946
	main structural refurbishment: 2001
	main control & instrumentation refurbishment: 2007
Owner:	RUAG Aviation
Contact point:	Center Aerodynamics, aerodynamics@ruag.com
Internet site:	www.aerodynamics.ch or www.ruag.com

Technical characteristics:

1 - Type of infrastructure

Wind tunnel	☒
Propulsion bench	☐
Structures facility	☐
Material facility	☐
Simulator (ex. Flight simulator, tower, …)	☐
Flight test bed (aircraft, embedded facilities, …)	☐
Supercomputers	☐
Other	☐

2 - Main technical characteristics

Velocity	up to 68m/s (M 0.2)
Test Section	7m wide, 5m high, 15m length
Max Re/m	4.5E6

Type	closed, continuous, atmospheric
Support	rear sting, ventral/dorsal, 3-strut, wire
Extras	Propeller & Jet Engine simulation, ground effect simulation

3 - Research domains which can be addressed (refer to ACARE taxonomy http://www.acare4europe.com/docs/ASD-Annex-final-211004-out-asd.pdf)

Unsteady aerodynamics, aeronautical propulsion integration, airflow control, high lift devices, wing design, performance, air-breathing propulsion

4 - Main (or specific) associated measurement techniques

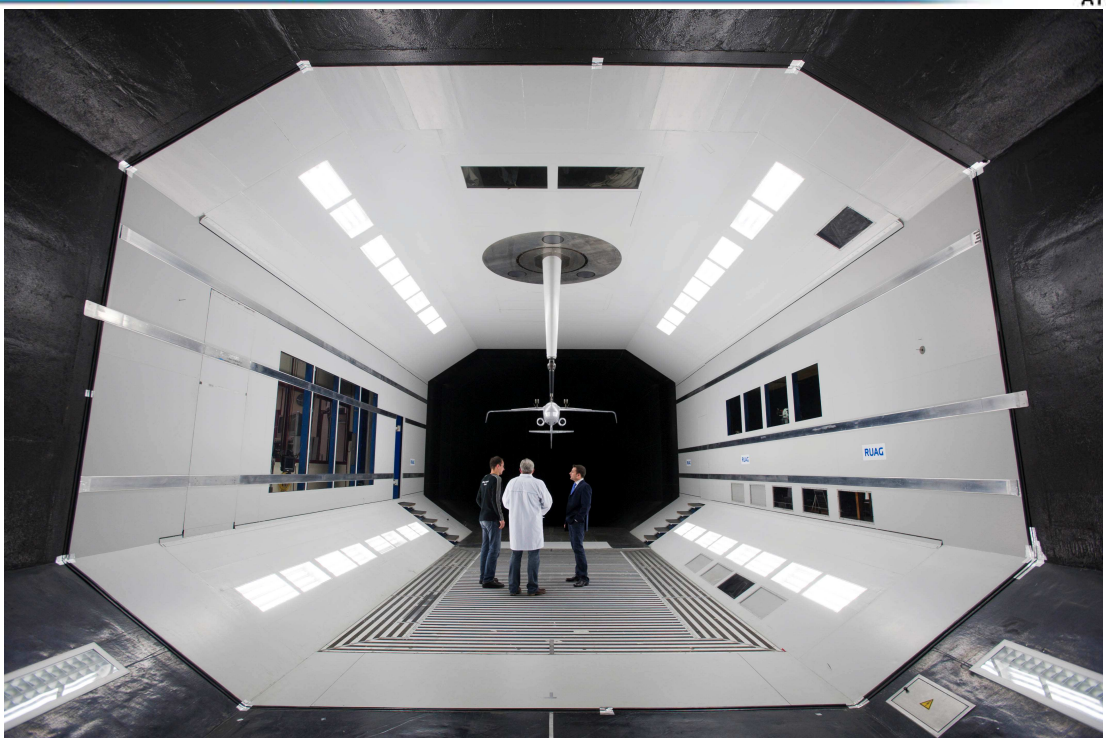
Static and dynamic forces, static and dynamic pressures, global and local forces, accelerations, temperatures, PSP, PIV, In-house measurement technology

5 - Operational status

- Fully operational (2000+ hours available in 2010)

6 - picture available ?

- external view and internal view as extra files with the filled questionnaire



Financial elements:

Replacement cost (M€uros)	
Less than 10	☐
10 to 30	☐
30 to 60	☐
60 to 100	☒
More than 100	☐

Practices concerning:

Access policy (contract, voucher, free access for research, etc…): contract

Support (regional, national, European, private, …): private

Comments:

Origin of information ('signature'): author and date

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February 2, 2012

The information will be implemented in the AirTN web site.

Air Transport Net

Do you agree to publish the information related to your IR :

In the protected part of the site	☒ **YES**	☐ **NO**
In the public web site	☒ **YES**	☐ **NO**

This questionnaire is sent by AirTN –FP7 team and must be returned the latest by 31 December 2010 to :

ONERA	☒ (**dominique.nouailhas@onera.fr)**
DLR	☐ **(nicole.ewinger@dlr.de)**
NLR	☐ **(kos@nlr.nl)**
CIRA	☐ **(m.amato@cira.it)**