



The New Dimension of Energy-Efficient Homes and Buildings



The eu.bac Association

Targets

- Promotion of Home Controls and Building Automation technologies
- Quality assurance
 - Testing – Certification – Labelling
- Positioning of Energy Performance Contracting (EPC)
- Proactive support
 - CEN/ISO standardisation
 - Achievement of EU directives
 - Energy efficiency of buildings
 - Energy services
 - Reduction of greenhouse gases emitted by buildings

Foundation

- Brussels 2003

Representation

- 85% of the European BACS manufacturers
- BACS market: 4,4 billion € (2012)

eu.bac Members





Proactive fulfilment of European directives



Energy Performance of Buildings Directive (EPBD)

Calculation methods for energy savings

EN 15232 – Energy Performance of Buildings – Impact of Building Automation

Fulfilment of EU directives and national regulations

Implementation of certification and test method
Provision of certification system for national regulations



Functions

- Bundling of technical know-how
- Providing information to
 - Member companies
 - Business
 - Policy Makers
 - Research
- European platform of Home Controls and BAC system and service providers
- Representation of the European Home Controls and BACS industries
- Statistical surveys, market research and case studies, as well as other services for industry and policy makers



Presidency – Board



President
Dan Napar
Siemens

Board Members

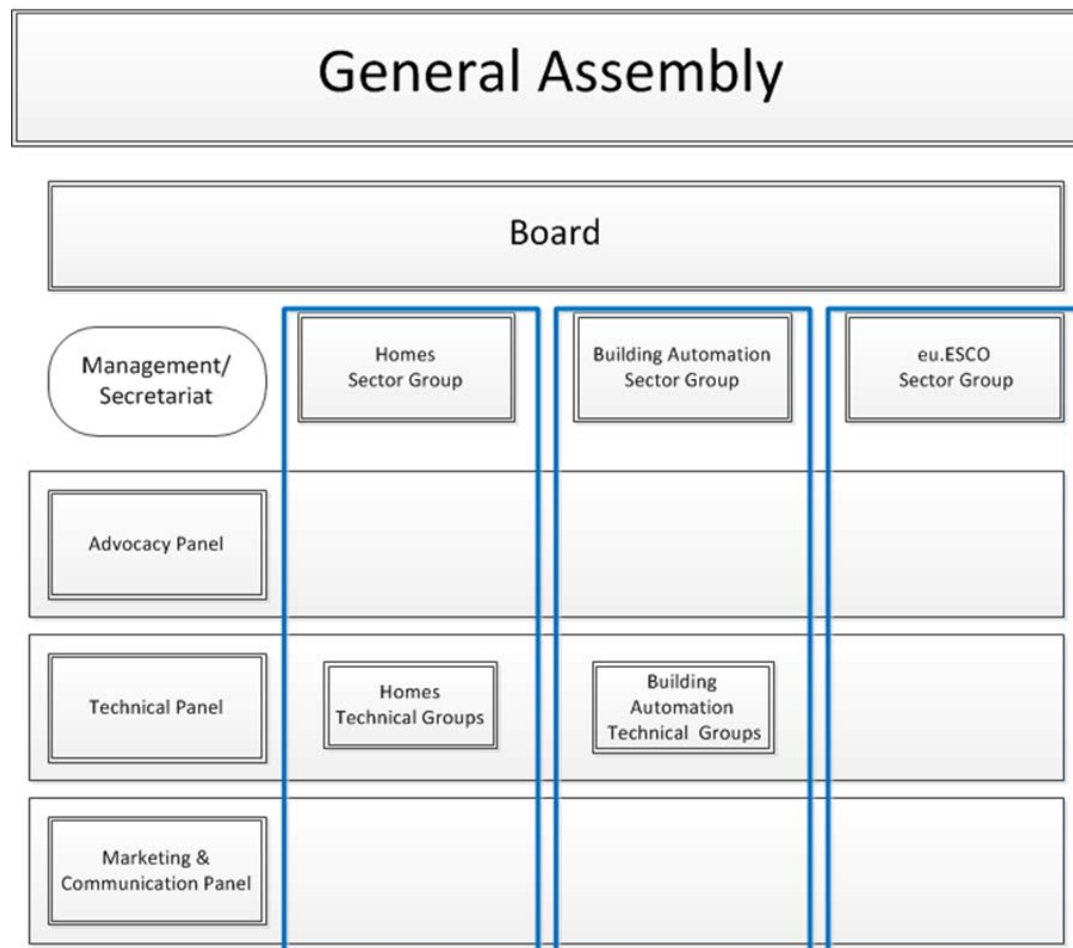
Volker Dragon, Siemens
Heinz-Eckard Beele, IMI Hydraulics
Lukas Eigenmann, Belimo
Klaus-Dieter Fuhrmann, IMI Hydraulics
Nils Minert, Johnson Controls
Peter Schoenenberger, Fr. Sauter
Hans Symanczik, Kieback & Peter
Roland Schweikhardt, Honeywell
Michel Ramser, Schneider Electric
Klaus Wächter, Siemens
Ian Wood, Honeywell
Aleksander Zalaznik, Danfoss

Board Advisors

Bertrand Deprez, Schneider Electric
Roland Ullmann, Siemens
Martin Zähl, Siemens

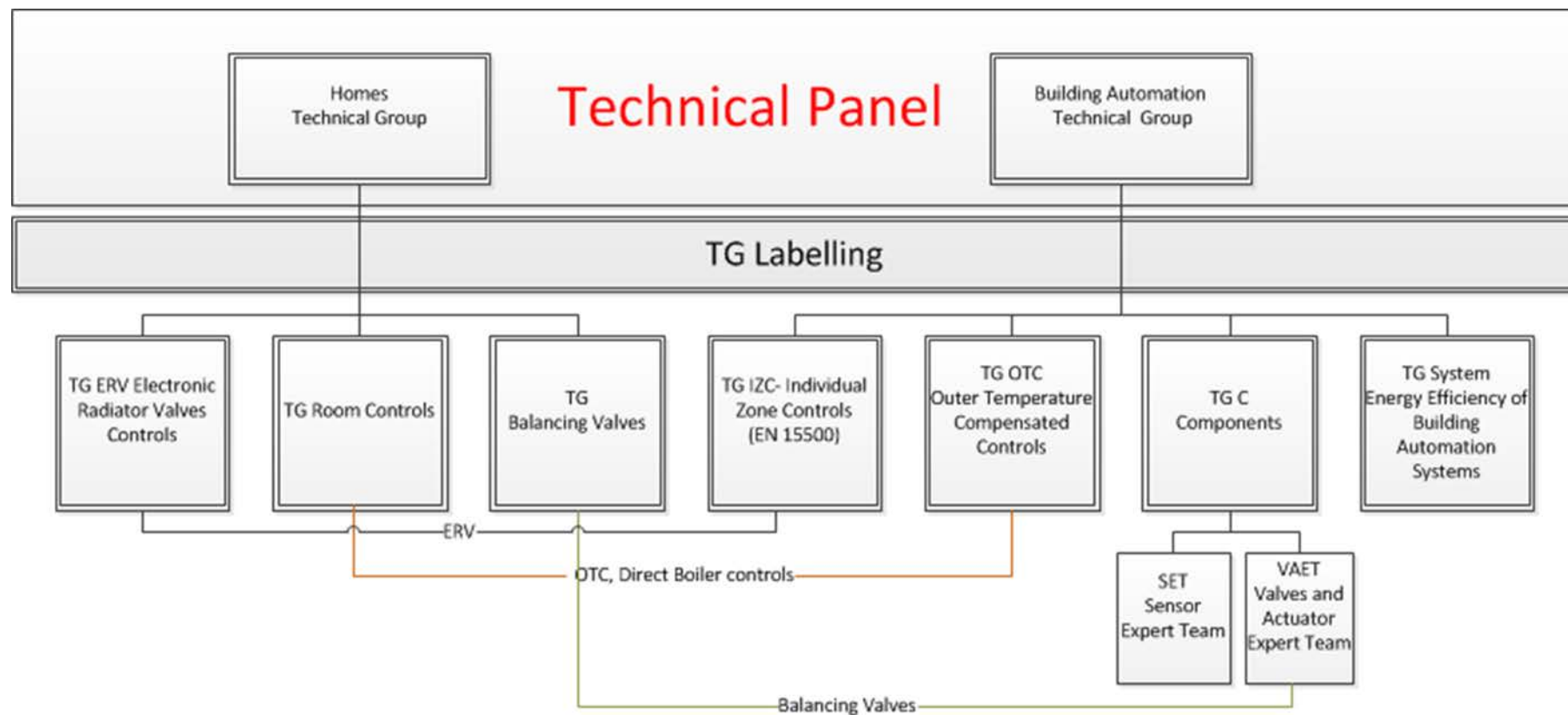


eu.bac Structure





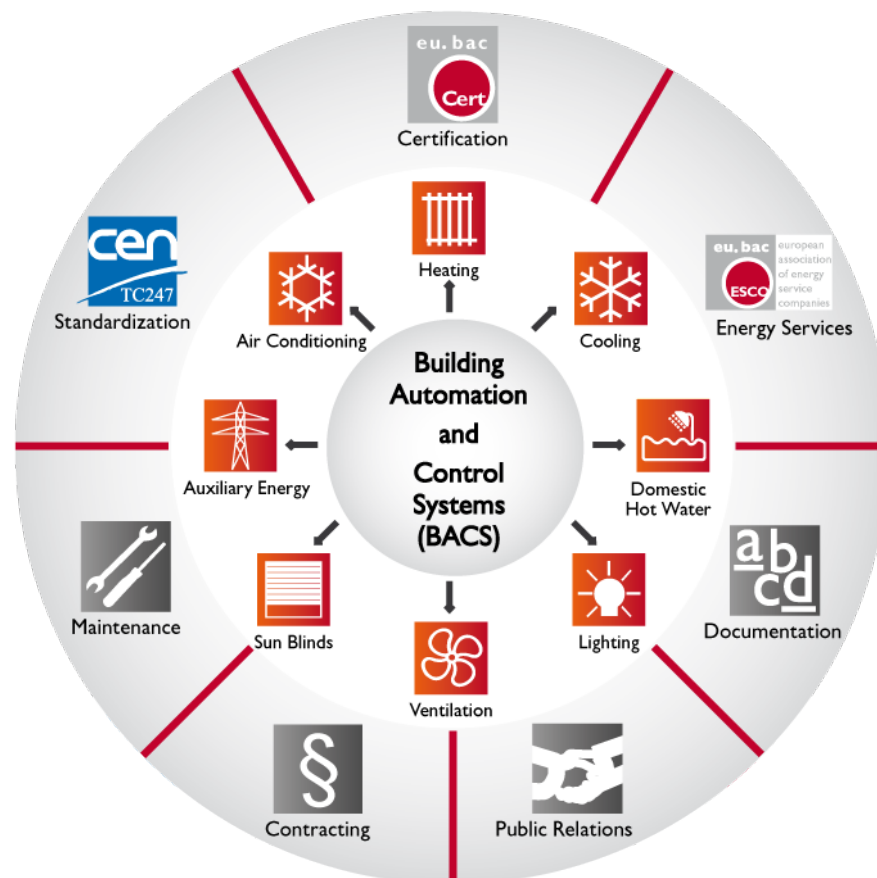
eu.bac Technical Groups Structure





Intelligent integration of services

- eu.bac promotes the utilisation of integrated and intelligent systems at the European level
- The integration of services offers new opportunities for energy efficiency in renovation and new construction
- eu.bac members create new jobs in Europe within their growing markets



Labelling of BAC equipment

Labels inform about the consumption of thermal and electrical energy and promote the use of energy efficient technologies.

BACS Energy Performance Classes – EN 15232

High energy performance
BACS and TBM

A

Advanced BACS and TBM
BACS and TBM

B

Standard
BACS

C

Non-energy-efficient
BACS

D

BACS Building Automation and Control System
TBM Technical Building Management System

Class A: Best available technology

Class B: Advanced technology

Class C: Reference level

Class D: Inefficient systems

eu.bac Product Labelling

The eu.bac label are granted for 2 areas:

- Home Control Products - for products used in the Residential Areas
- Building Automation Products - for products used in the Building automation environment



Manufact Modell



Application Name



Manufact Modell



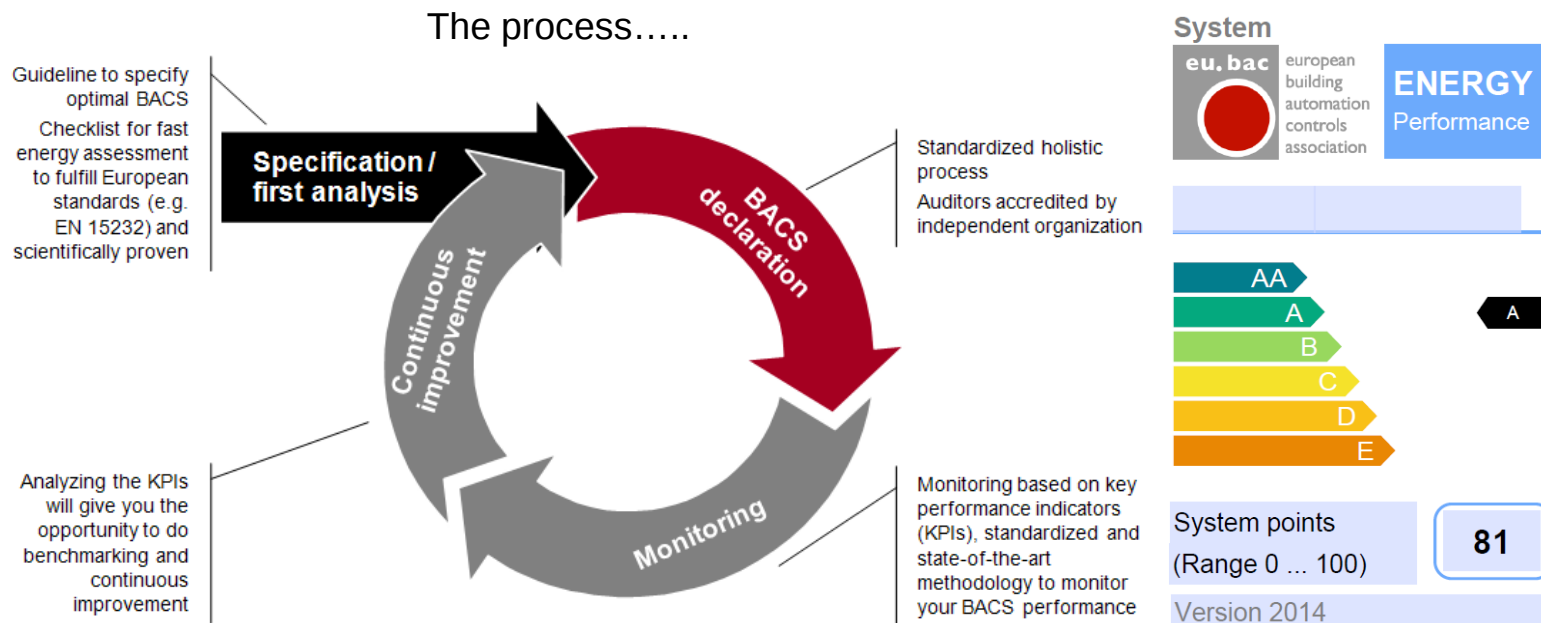
Control Accuracy
(Range 0 ... 2K)

0.8K

Application Name

eu.bac Building Automation System Label

Based on EN 15232



In 2012 the European building automation and controls association **eu.bac** launches a new system audit. The technical recommendations and **Check-list** will help you perform a quick assessment of an existing Building Automation and Control System, otherwise known as **BACS** installation or design and will provide you with targeted **improvement** recommendations that will **save** you energy and lifecycle costs, whilst improving the comfort conditions.



Energy saving potentials

BACS can reduce thermal and electrical energy consumption* up to

- 26% in **educational institutions** and **hospitals**
- 27% in **residential buildings**
- 41% in **hotels** and **restaurants**
- 49% in **wholesale** and **retail buildings**
- 52% in **offices** and **lecture halls**

* High energy efficiency (Class A) compared to standard equipment (Reference Class C) EN 15232 – Impact of BACS and TBM on energy performance of buildings



Successfully introduced – Quality Management System

Goal

Certification of innovative products that enable higher energy efficiency

Solutions

- ✓ Calculation methods
- ✓ Qualification of testing laboratories and certification authorities
- ✓ Implementation of a European certification system



The eu.bac Cert logo guarantees

- Conformity with standards and regulations
- Excellent quality
- Higher energy savings guaranteed

The certification system

eu.bacCert

- promotes the **best available technology** for system designs and efficiency of components
- shows the consequences in terms of **comfort and energy efficiency**
- enables **calculation of the best affordable technology**
- **eu.bac cert Partners:**



Certification bodies



Test laboratories

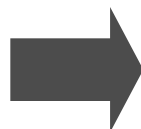




Standards for eu.bac certification



European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung



Technical Committee -TC 247
Building Automation, Controls
and Building Management

**EN
15500**

**Product
standards
with quality
and energy
performance
criteria**



**EN
16484-2/3
14908-x
50090-x**



**BACS functions
Communication
protocols**

**EN
15232**



**Energy
Performance of
Buildings

Impact of
Building
Automation**

eu.bac



European product certification



Energy Performance Contracting (EPC)

The EU Commission demands energy services activities



eu.bac promotes EPC as the solution for more energy efficiency in existing buildings



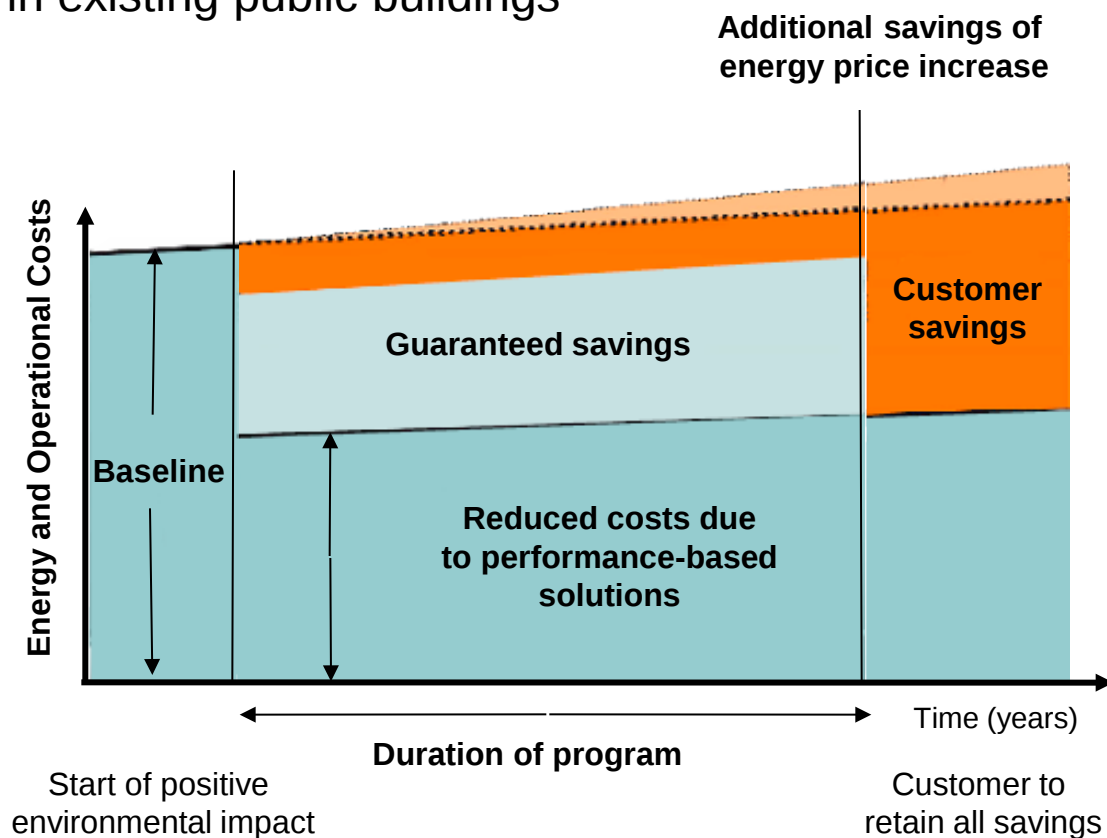
eu.bac developed procedures to determine EPC potential

- eu.bac has founded the **European Association of Energy Services Companies (eu.ESCO)**
- Additional potentials for energy savings on national and EU-level are enabled by EPC
- Public authorities achieve sustainable development and environment goals



What EPC can achieve

EPC is the key to cost-effective energy efficiency in existing public buildings



Best practices

- **Austria:** 3000 federal properties
- **USA:** \$1.9 billion was invested in federal facilities
- **Sweden:** Nyköping Community
- **UK:** Royal Gwent Hospital
- **UK:** IBM
- **Germany:** City of Berlin



New Perspectives in residential automation



The European Commission expects annual energy savings of 15 % in residential housing starting in 2020.

- ✓ Eu.bac promotes the standardization of components and systems for home automation.
- ✓ eu.bac guarantees the conformity of certified products with national standards and European directives

New perspectives Building automation secures real estate values

30 percent energy savings starting in 2012

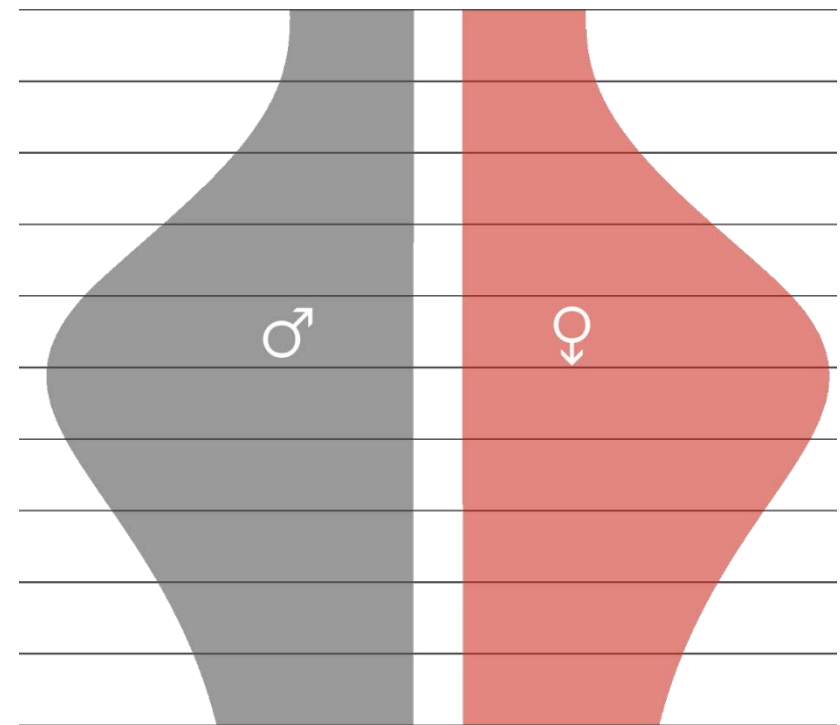
- EU – EPBD 2012
- Germany – EnEV 2012

Ambient Assisted Living (AAL)

- Age-appropriate assistance for a healthy and independent life

Residential and home automation

- Comfort
- Security
- Entertainment
- Battery-free wireless systems



Source: Statistisches Bundesamt



www.eubac.org

eu.bac

Diamant Building

Boulevard A. Reyers 80
1030 Brussels
Belgium



Phone: +32 2 706 82 02

Fax: +32 2 706 82 10

e-mail: info@eubac.org

Managing Director
Dep. Managing Director
Director Governmental
Relations
Director Residential Controls
Assistance

Dr. Peter Hug
Thomas Müller
Andrei Litui

Colin Timmins
Manda Kasic

peter.hug@eubac.org
thomas.mueller@eubac.org
andrei.litui@eubac.org

ctimmins@eubac.org
jenna.arnold@eubac.org