

Delft University of Technology



TU DELFT



- established in 1842 by King William II
- 8 Faculties & 38 Departments
- 16 BSc & 33 MSc programmes
- University Graduate School, PhD 2700 >70 % international
- Students almost 22.000 – international 10% BSc & 40% MSc
- Staff scientific 2700 & professional 2200 – 31% international (*Italy, China, Germany, India, Iran almost 45% of total 31%*)
- 90.000+ alumni (LinkedIn) worldwide



TU Delft Engineer for Life

90.000+ alumni





- 4 Delft Research-based Initiatives & 8 TU Delft institutes
 - Energy; Delta, Infrastructures & Mobility; Health; Global
 - Robotics; Space; Climate; Sports; Safety & Security; etc.
- European networks – 4TU, LDE, Idea League, CESEAR
- edX chartered member platform for online learning
 - >1.200.000 students worldwide – TU Delft MOOCs (total 47). Total paid online courses: 50
- TU Delft Valorisation Centre, YES!Delft Business Incubator & Labs, TU Delft Science Park & Technopolis
- international rankings 2016
 - QS 62, THE 59, Shanghai Ranking (ARWU) 100-151
 - Reuters Europe's most innovative universities 2017; 8

Rankings



59th
World University
Rankings
2016

Up from 151th in 2010.



20th
Engineering & Technology
Rankings
2016



51-60th (shared)
World Reputation
Rankings
2016

Highest ranking Dutch university.



62th
Worldwide QS
Ranking
2016

Up from 64th in 2015, maintaining
its 2nd position in the Netherlands.

By subject:



4th
Architecture
Worldwide



6th
Chemical
Worldwide



5th
Civil & Structural
Worldwide



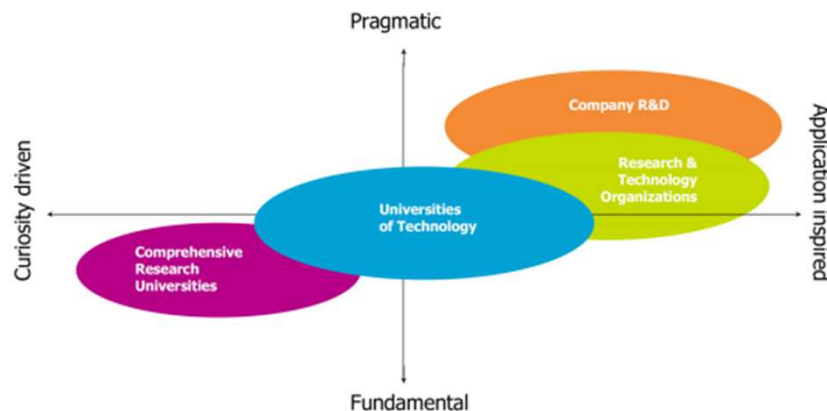
151-100th
Worldwide Shanghai
Ranking
2016

Up from 201-300th in 2015,
ranking 9th in the Netherlands.

Funding 2015

National picture

- 58% direct government funding, mix of formula-based, block grants and performance-based funding
- 29% competition based funding by the national research council and contract research funding by industry, EC, government departments and others
- 9% funding from tuition fees
- 4% other income



TU DELFT - 8 FACULTIES



Applied Sciences

CEG

EEMCS



Architecture & Built Environment



Aerospace Engineering



Industrial Design



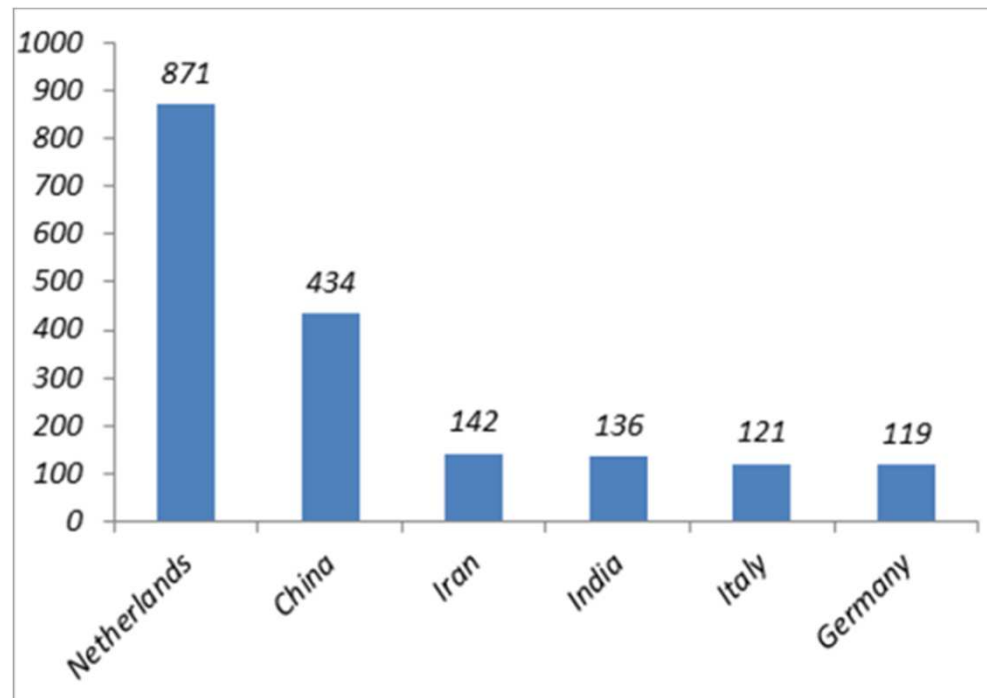
3ME



TPM

TU Delft Graduate School

The **TU Delft Graduate School** offers PhD candidates an inspiring research environment, an excellent team of supervisors, academic staff and a PhD mentor, personal Doctoral Education Programme and support of a career advisor or a personal counsellor. Part of the TU Delft Grad School is a focused programme of **graduate education** at central and faculty level.



DELFT RESEARCH-BASED INITIATIVES (DRI)



- Societal challenges; thematic, virtual order of TU delft research activities; overarching faculties and disciplines

TU Delft Education



DREAM HALL: D-Dream projects

Delft - Dream Realisation of Extremely Advanced Machines

- Student teams work on engineering challenges
- 12 Dream teams mobilize 700 students
- High visibility, great motivator, international competitions



E.g. the NUON Solar Team participates in the two-yearly 3000 km World Solar Challenge Race from Darwin to Adelaide

- *1st place 2001, 2003, 2005, 2007, 2013, 2015*
- *2nd place 2009, 2011*
- *1st place Africa 2016*



Online education: 1.500.000 registered

Online-learning.tudelft.nl

			
Next Generation Infrastructures 2	Drinking Water Treatment	Functional Programming	Delft Design Approach
			
Technology for Bioproducts	Solving Complex Problems	Responsible Innovation	Treatment of Urban Sewage
			
Introduction to Water & Climate	Introduction to Solar Energy	Aeronautical Engineering	Credit Risk Management



TU Delft Valorisation Centre

- Supports, stimulates and facilitates staff in knowledge transfer
- Research Exhibition 2017; showcased 175 Innovations to 400 comp.



Business Partners



TU Delft



R&D Subsidies

R&D Project
management

Intellectual
Property

YES!Delft & new - YES!Delft Labs



162
Companies



€98,000,000
Total turnover in 2014

Doubles every year



70
in the incubator
1.040
FTE



€135,000,000
Invested capital
Since 2005

= 300,000,000+

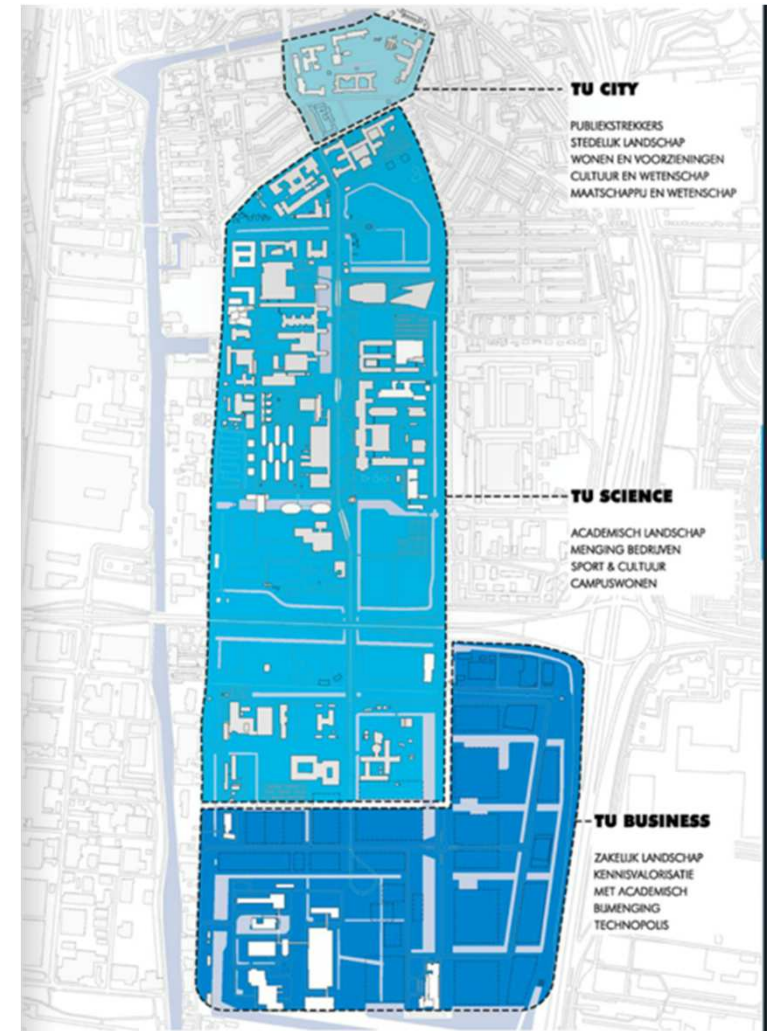


NEW - YES!Delft Labs:
technological and industrial biotech
businesses

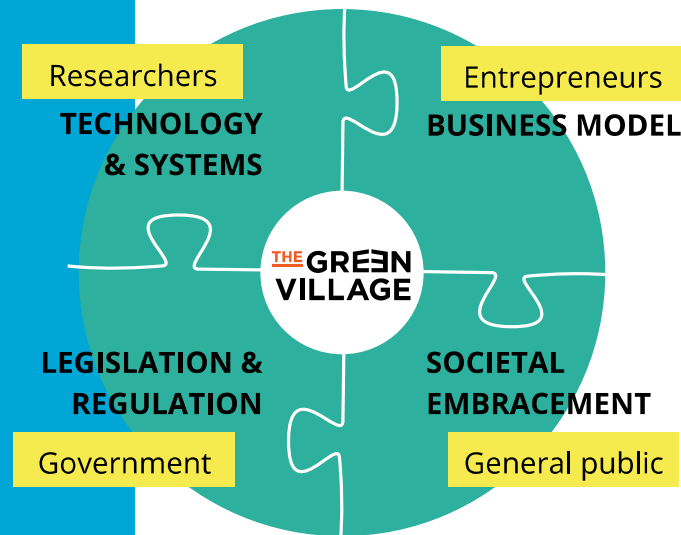


TU Delft Science Park

A science park designed for high-tech companies, R&D departments and start-ups. A knowledge-intensive environment where science & business meets



The Green Village



- A sustainable future needs radically new ways to combine technologies and industries
- The Green Village offers an inspiring and innovative place to accelerate radical innovation of systems, and brings together engineers, entrepreneurs, governments, and society, to make sure radical innovations quickly find their way to the market
- Various programmes already in place: e.g. Car as Power Plant and AC/DC
- *Construction in progress*

HR/Organization plan BPF

Confidential



Strategy

Principles

Governance

Org chart

Job profiles

Director: profile and mandates

To do

Discussed in HR team BPF and in Core Team BPF, version 12-4-2011

Strategy



- The BPF organization owns and runs a unique bioprocess pilot facility
Aimed at Research and Development using process techniques for the innovation, development and scaling up of food products, bio-chemicals and/or bio-fuels with the possibility to make use of second generation feed stocks and capable to accommodate research with respect to third generation Bio-energy. Having the facilities and capabilities to host and develop training and education programs in this field.
- BPF is an open access facility that can accommodate a large variety of clients (SME, Corporate, Universities and Institutes).

Principles



The organizational design supports customer focus (clarity and transparency), research and education and a drive for innovation.

The design has to guarantee enough flexibility for growth (start up – growth and steady state).

The design supports a learning organization and environment.

BPF is an open access facility that can accommodate a large variety of clients (SME, Corporate, Universities and Institutes).

There are not more than 3 layers in the design (1. Director – 2. Manager Operations – 3. Process Technologist/operational Expert / Operators).

Span of control not to exceed 25 direct reports.

Governance



The BPF is a separate legal entity (BV) owned by the Shareholders and subsidized by both EFRO and EL&I funds for a substantial amount.

The Shareholders appoint the Director of the BPF and ensure the Director has the proper mandates to run the BPF according to the strategic plan

Users/clients of the BPF can become member of the User Council (Advisory Board) to ensure/check the Director properly applies the open access character of the BPF

The Director has to report to both the Shareholders and to the Subsidy providers

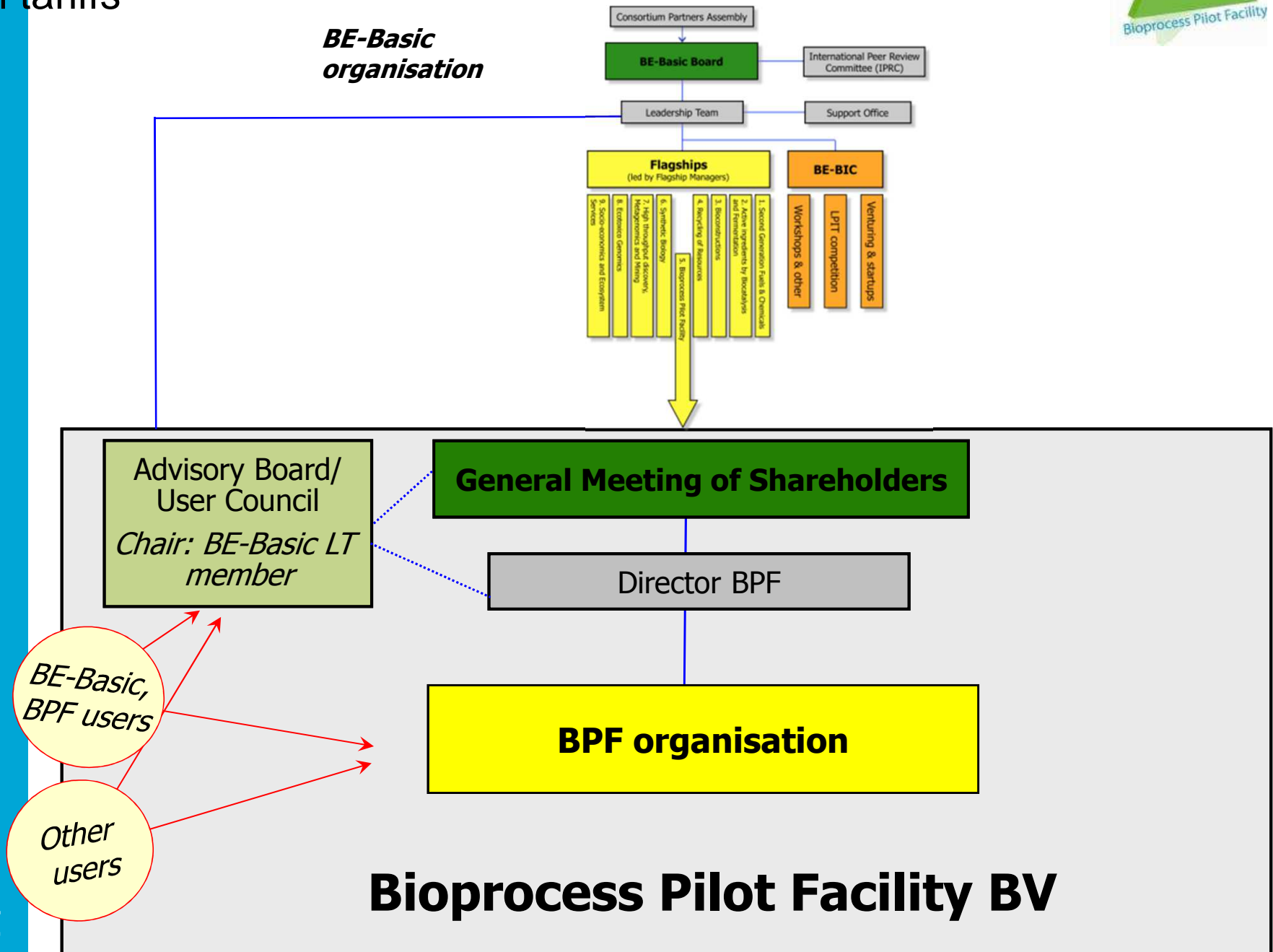
In due course the Shareholders may install a Supervisory Board ("Raad van Commissarissen") for the BPF BV.

Governance and legal structure(working model)

Legal entity "BV", shareholders, mixed group of clients,
uniform tariffs



BE-Basic organisation



Job description Director BPF

purpose of the job



- Profiles the BPF as an independent, open access pilot facility with high levels of knowledge and technology available for users. Radiating confidence that the BPF is the place to be for pilot work fitting in the users R&D plans and for their training and education needs. Reliable and users know how and IP well protected.
- Provides overall leadership and guidance to BPF to ensure the attainment of strategic objectives and optimal use of the facility aimed at in any case break even operation (EBIT neutral) with a positive outlook.

TU Delft and BPF reasons to participate

- Research cooperation within B-Basic
- Transfer of facilities to a new Faculty
- building of TU Delft
- Cooperation with DSM and Corbion
- Profiling of Delft as biotechnology hub