

PORT 2600

RDM

CAMPUS

HPI.T/010

**COOPERATION IN INNOVATION
AT A HISTORICAL LOCATION**



RDM CAMPUS IS...

...a new purpose for a historical industrial location: shipyard and buildings of the 'Rotterdamsche Droogdok Maatschappij' (Rotterdam Dry Dock Company). The abbreviation RDM now stands for: *Research, Design & Manufacturing* ...a cooperative venture between Albeda College, Rotterdam University and the Port of Rotterdam Authority ...situated in Heijplaat, centrally located in the CityPorts area, easily accessible, with transportation to the city centre by fast ferry Aqualiner ... Innovation Dock – a monumental industrial hall of 23,000m², 'Droogdok' (Dry Dock) – the former head office of the RDM – and 'Dokhaven' (the Dock) ...a place where students and companies collaborate in an open environment and focus on new economic activity and sustainable and innovative solutions in the markets *Building, Moving & Powering* ...a location for education: intermediate and higher vocational education under the same roof, with plenty of space for experiment and for practical research ...a location for business: accommodation for the innovative and creative manufacturing industry ...a location for events: accommodation for meetings and conferences.

MORE INFORMATION?

Visit www.rdmcampus.nl/english or contact RDM Campus:

Heijplaatstraat 23

3089 JB Rotterdam

The Netherlands

+31 (0)10 - 794 9229

office@rdmcampus.nl



© Z-CARD® ProcterKlader® trade marks used by Z Industries Ltd under license. This product is a double-sided sheet card. These products and associated machinery and processes are subject to UK, European and WorldWide patents granted and pending, copyright, trade marks and other intellectual property rights including European patent numbers EP 002096. © 2009 Z Industries Ltd. Produced under license by Z-CARD® LTD, London Tel +44 (0)207 924 5147, sales office: Z-CARD® Ltd, PO box 10016, 1001 EA Amsterdam Bosonk@rdmc.com
www.zcard.com No. 2779516 (2-2)



RDM Innovation Dock was co-financed by the European Regional Development Fund.

RESEARCH, DESIGN & MANU- FACTURING

RDM CAMPUS IS A CAMPUS FOR EDUCATION, BUSINESS AND EVENTS. IT IS LOCATED AT THE OLD SHIPYARD OF THE 'ROTTERDAMSCH E DROOGDOK MAATSCHAPPIJ' (RDM - ROTTERDAM DRY DOCK COMPANY), SITUATED IN THE CITYPORTS AREA OF ROTTERDAM. THE ABBREVIATION RDM NOW STANDS FOR RESEARCH, DESIGN & MANUFACTURING. ON RDM CAMPUS EDUCATIONAL INSTITUTIONS AND COMPANIES WORK TOGETHER TO ACHIEVE SUSTAINABLE AND INNOVATIVE SOLUTIONS IN THE MARKETS BUILDING, MOVING & POWERING. RDM CAMPUS IS A COLLABORATION BETWEEN ALBEDA COLLEGE, ROTTERDAM UNIVERSITY AND THE PORT OF ROTTERDAM AUTHORITY.

The redevelopment of the city ports is important for both the port and the city of Rotterdam. It gives Rotterdam a competitive edge. At the former shipyard of RDM, a campus has been built for educational and research institutions and their partners from the business community and government. The establishment of research and vocational education is of significant importance in keeping (specific) technical know-how in the port area and in stimulating innovation. On RDM Campus educational institutions and companies work together in training students for jobs in the area – now and in the future.

RDM Campus consists of the buildings around the 'Dokhaven' (the Dock), especially Innovation Dock - the former machinery hall - and 'Droogdok', the former head office of RDM. Albeda College, Rotterdam University and the Port of Rotterdam Authority saw potential in this industrial monument and joined forces in redeveloping this historical area. RDM Campus was renovated from 2007 until 2009, and was officially opened by the Prince of Orange in 2009. The 'Dokkantoor' (Dock Office) and extensions of 'Droogdok' (Dry Dock) are also part of RDM Campus. These buildings will gradually undergo renovation.



BUILDING, MOVING & POWERING

The focus of RDM Campus is on three market areas:

BUILDING

Examples of sustainable building on land and water are: the development of lightweight construction techniques, 'water houses', concept houses and a floating expo centre and island for work and residential purposes. Building on water, now a trend in building technology becoming more and more popular, is expected to have a great impact on the local area. Plans for Rotterdam's dock basins include: floating houses, offices and improved infrastructure.

MOVING

Converting to electrical or hybrid vehicles is one example of smart mobility and advanced car technology. Because Rotterdam is one of the largest ports in the world, the traffic is enormous. Ocean-going and inland vessels, haulage by road and by rail, and normal daily traffic cause congestion and pollution. This is why RDM Campus aims to focus on the development of intelligent, sustainable means of transportation by water and by road.

POWERING

Energy technology and sustainable energy. The move towards sustainable energy fits in with Rotterdam's role as 'Energy Port'. Rotterdam wants to decrease its one-sided dependence on the refining, storage and transfer of oil by using renewable and reclaimable energy. RDM Campus is developing a centre for sustainable energy.

In all these themes the ideas of the Rotterdam Climate Initiative are conveyed. In Rotterdam's objective on energy saving, sustainable and ecologically friendly manufacturing, living, working and recreation, RDM Campus plays a significant part.

EDUCATION

The location of intermediate and higher vocational education under the same roof makes education on RDM Campus special. Albeda College and Rotterdam University work together and with companies on RDM Campus, as well as with technical universities outside the campus such as TU Delft. There is plenty of space on RDM Campus for various activities: applied research, innovation, interaction and experiments.

On RDM Campus, Albeda College offers education in metallurgy and maintenance. Rotterdam University offers education in industrial product design, water management, car engineering, architecture and urban design, and civil engineering.



PARTNERS

ALBEDA COLLEGE

Albeda College is a large comprehensive school for intermediate vocational education (MBO) and adult education in Rotterdam. Here, approximately 25,000 students can follow a variety of programmes in 350 fields at 50 locations. Albeda College offers vocational education in the area of Healthcare, Welfare, Service Provisioning, Food, Technology and Economics. In addition to vocational education, Albeda College also offers education in the area of integration and reintegration. This school is well known for its wide variety of programmes, and an abundance of opportunities for students, who also receive guidance in terms of employment. The close collaboration with companies and institutions makes this possible.

ROTTERDAM UNIVERSITY

Rotterdam University (Hogeschool Rotterdam, a university of applied sciences) is a leading knowledge institute for higher professional education (HBO), with 28,000 students preparing for their future career. Rotterdam University uses the knowledge and hands-on experience from professional practice. Rotterdam University offers over 75 study programmes covering six different categories. All study programmes are available as full-time programmes; a large number are also available as part-time or work-study programmes. The last two programmes mentioned are combined with a (paid) job. In addition to higher educational study programmes, master programmes are available at Rotterdam University, enabling students to specialise in a specific area.

BUSINESS

RDM Campus wants to be a stimulus for the innovative and creative manufacturing industry in the Rotterdam area, bringing together practice-based research and innovation & entrepreneurship, through company and institutional collaboration. A unique learning and working environment, due to the synergy between business and education and the unique location where this all takes place. Students work together with companies on developing innovative product concepts and on manufacturing these products (from concept to prototype and by using the most modern techniques).

The Innovation Dock (see the reverse side for more information) business hall houses innovative and sustainable companies involved in *Building, Moving & Powering*, for example:

Ampelmann: builds ship-based self stabilizing platforms that actively compensate all vessel motions to make offshore access safe, easy and fast. RDM Campus is ideal for them because of the location near water, the large floor space, cranes and the fact that all their important customers are located 'just around the corner'. They have a good cooperation with students who, for example, design and make parts for them.

Formula Zero: promotes well-to-wheel zero emission racing through competitions, events and cutting edge know how. Motor sports have proven to be a very effective way to introduce innovations in the automotive sector. The company uses RDM Campus as its base for storage, servicing and researching electrical or hydrogen fuelled vehicles, with the participation of students.

Prometics: industrial prototyping by use of computers, robots and multi-axis machining centres, making prototypes and production series of industrial parts and products. Prometics cooperates closely with the educational institutions to educate the future talents of prototyping, innovation and manufacturing.

Public Domain Architects: co-designers of the Floating Pavilion in Rotterdam's Rijnhaven, an innovative, sustainable and climate proof structure, and forerunner of future floating communities in Rotterdam. Students of Rotterdam University and Albeda College participated in the design and building of this expo centre, that was built in the Heijsehaven behind RDM Campus.

Dnamo: Rotterdam's breeding place for people starting up a sustainable business, where they can come for support to successfully develop their business. The incubator offers strategic advice, training, personal coaching, work space and funding.

FOR MORE INFORMATION ON INNOVATION DOCK, SEE THE REVERSE SIDE. FOR A LIST OF COMPANIES THAT HAVE ESTABLISHED THEMSELVES ON RDM CAMPUS, SEE THE BUSINESS DIRECTORY ON WWW.RDMCAMPUS.NL.

EVENTS

RDM Campus has great appeal due to its unique historical and industrial location in the Rotterdam CityPorts area. Its heritage and the collaboration between business and education make RDM Campus an attractive location for meetings, conferences and other events. Organising events fits in well with its strategy, the exchange of knowledge strengthens research and innovation.

Conferences, exhibitions and other meetings can be held at Innovation Dock and 'Droogdok' (see reverse side for more information on the buildings). Both large and small rooms are available for rental. Lane 2 in Innovation Dock, for example, has a surface area of 600m², and the auditorium in 'Droogdok' offers seating for 135 people. In 'Droogdok' the art deco RDM management offices are also available as a meeting space.



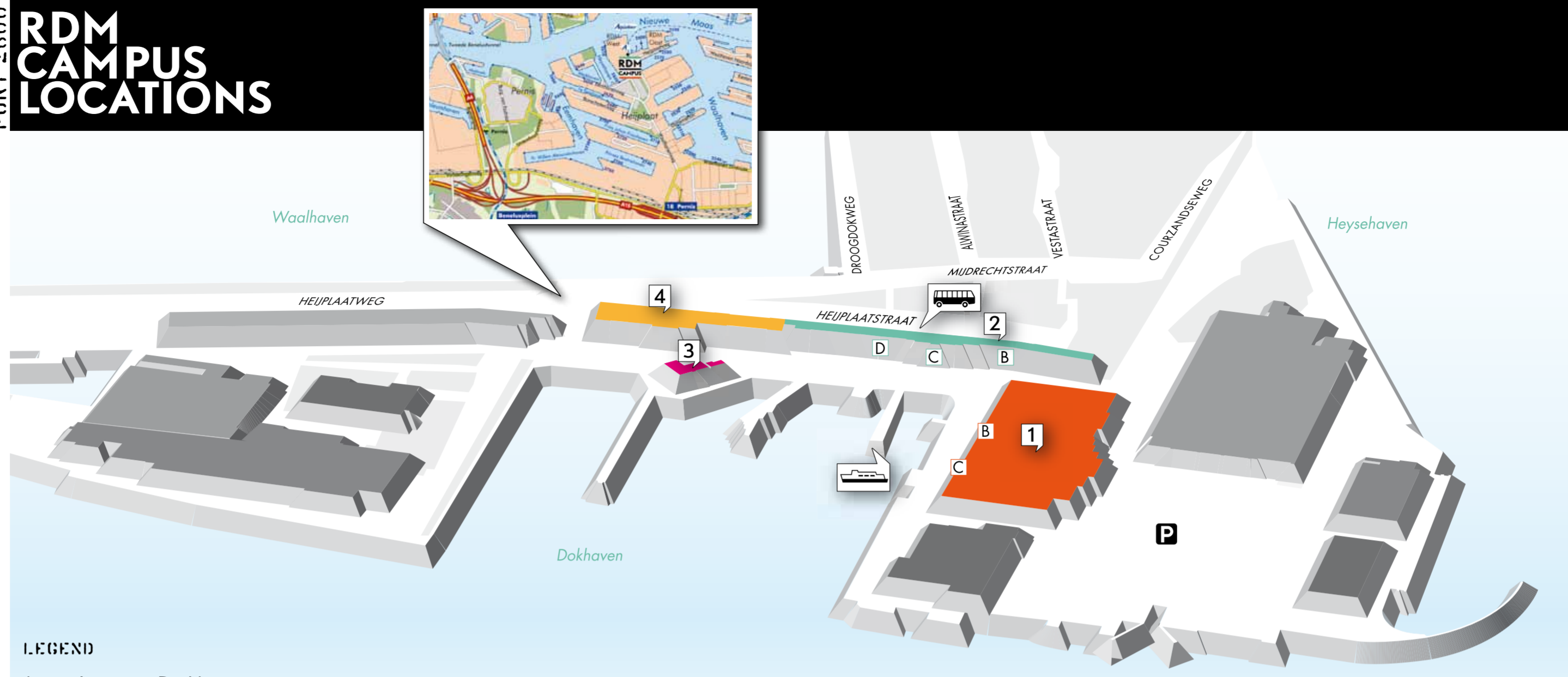
15 MIN. FROM CITY TO RDM





RDM HEIJPLAAT: 1902 - 1914 - 1983

RDM CAMPUS LOCATIONS



LEGEND

- 1 ■ Innovation Dock*
- 2 ■ Droogdok**
- 3 ■ Dokkantoor
- 4 ■ Dokloodsen
- Aqualiner
- Bus stop

- * Innovation Dock ■ 1
- B Albeda College, Rotterdam University
- C Companies
- ** Droogdok ■ 2
- B RDM Campus, Rotterdam University, Academy of Architecture
- C Congress Centre
- D Stadshavens Rotterdam

FROM SHIPYARD TO CAMPUS

HISTORY OF RDM
RDM ('Rotterdamsche Droogdok Maatschappij' or Rotterdam Dry Dock Company) was founded in 1902 as a continuation of 'Maatschappij De Maas' and was established in Heijplaat. The shipyard prospered and RDM was continually adding new buildings, redeveloping and rebuilding. The buildings date from different periods after 1902. RDM had its own ferry service from Schiedam for their employees, but because of the long distance and the growing number of employees they started building the garden village Heijplaat in 1914. By the Second World War the area had grown to 40 ha. RDM was one of the largest shipyards in Europe. One example of a ship built here is the ocean liner 'Rotterdam' of the Holland-America Line. By the end of the 1950s, the shipbuilding industry was doing poorly. RDM started doing work for the defence industry, but also had assignments from the offshore and energy sector. After various mergers the company was taken over by the RSV Company, which went bankrupt in 1983, rendering 1,370 people - a lot of them residents of the village of Heijplaat, unemployed, which was a heavy blow for the village.

THE VILLAGE OF HEIJPLAAT
The history of the garden village Heijplaat runs parallel to that of RDM. From 1914 to the 1950s around 850 houses were built. The original urban development plan and the first houses were designed by RDM's own architect, Mr. H.A.J. Baanders. Of course, the residents of this village all worked at RDM. Because of the financial problems of the RSV Company in the late 1970s, the village was sold to a housing corporation in 1980.

HISTORICAL HERITAGE
The RDM terrain and buildings, together with the quarantine buildings and the village of Heijplaat, form a unique enclave right in the centre of today's modern and dynamic harbour area. Together with the old districts 'Delfshaven' and 'Scheepvaartkwartier', it is considered to be an area of great cultural and historical significance. During the past few decades some of the buildings on the RDM terrain were run-down. With the development of RDM Campus, an important part of Rotterdam's industrial heritage has been preserved and made available for future generations.



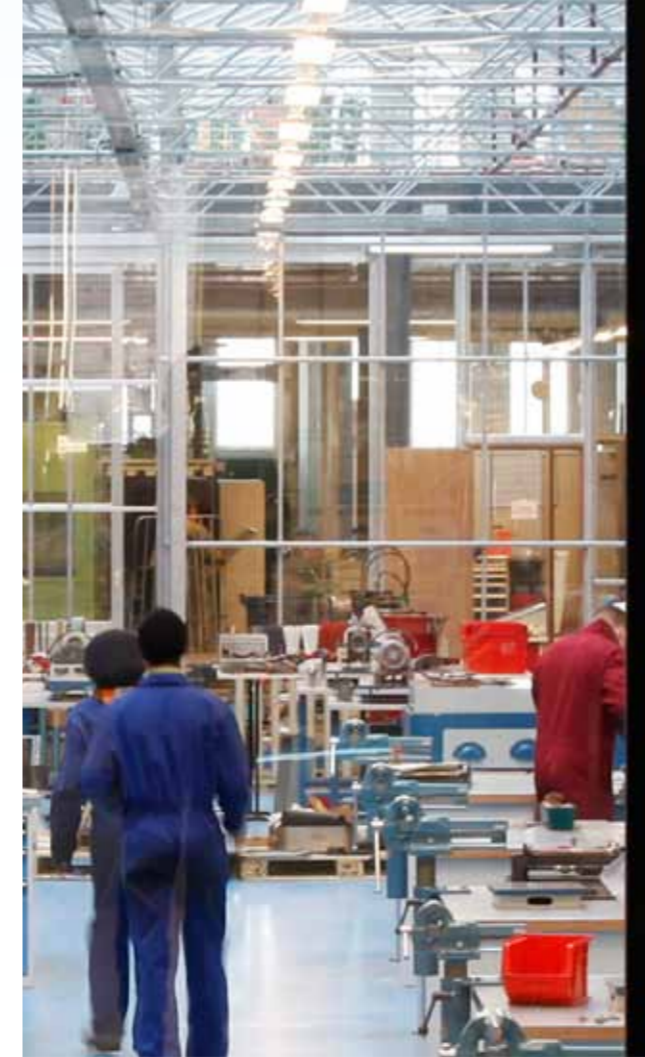
INNOVATION DOCK

Innovation Dock is a monumental industrial hall with a surface area of approximately 23,000m², a minimum height of 12 metres and a maximum height of 20 metres. Innovation Dock consists of two sections, the education hall that houses Albeda College and Rotterdam University, and a business hall, where 11,500m² is available for small innovative companies that operate in the markets of *Building, Moving & Powering*. Renovation was necessary in order to transform the former machinery hall into the Innovation Dock. In the education hall a floor and large glasshouses have been added. With its 138 kilometres of water pipes, Innovation Dock also possesses the largest underfloor heating in Europe.



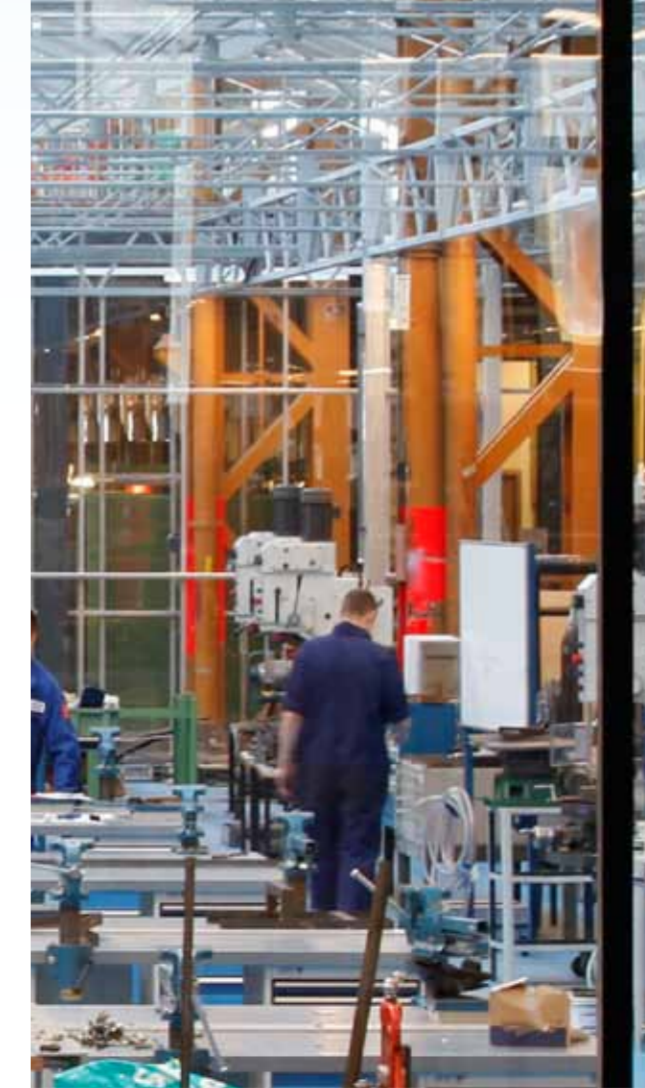
DROOGDOK

The former head office of RDM 'Droogdok' (Dry Dock) now houses a congress centre, offices, educational facilities and studios. The building consists of a number of buildings built between 1912 and 1952. The main part of the building was built between 1913 and 1916, with the main entrance for employees and the monumental management floor, with its own special entrance and adjoining management offices. 'Droogdok' houses the project offices of RDM Campus, Stadshavens Rotterdam, the Rotterdam Academy of Architecture and Urban Design, and expertise and knowledge centres of Rotterdam University.



DOKHAVEN

The entrance to RDM Campus by water is via the 'Dokhaven' (the Dock). It has a jetty for the fast ferry Aqualiner, which transports students and residents of Heijplaat to and from the city centre of Rotterdam. Part of the 'Dokhaven' is reserved for inland shipping, the other part is used for exhibitions and experiments, including prototypes of 'water houses', a floating island for work and residential purposes and terraces and parking lots (partly) on water. On the water front, the building 'Dokkantoor' (Dock Office) is also part of RDM Campus. It houses various companies.



INNOVATION DOCK: 23,000 M²

ROUTE

- RDM Campus is easily accessible by car and public transportation, and has ample, free parking.
- CAR** RING ROAD ROTTERDAM ZUID (SOUTH, A15) - EXIT HEIJPLAAT/PORT NUMBERS 2250-2750 - FOLLOW HEIJPLAAT/PORT NUMBER 2600
- BUS** FROM UNDERGROUND STATION ZUIDPLEIN RET-BUSES 68 AND 61 GO TO HEIJPLAAT/RDM >> www.ret.nl
- FAST FERRY** FROM WILLEMSKADE AND JOBSHAVEN THE AQUALINER SAILS TO RDM CAMPUS >> www.aqualiner.nl
- WATERTAXI** TAXI BOAT >> www.watertaxirotterdam.nl
- FOR AN ITINERARY GO TO** WWW.RDMCAMPUS.NL/ENGLISH