



Incuboxx Timisoara – The Business Incubator

蒂米什瓦拉产业孵化中心

Location/地点: Timișoara, Romania/罗马尼亚, 蒂米什瓦拉

Architect/建筑师: Andreescu and Gaivoronski, associated architects

Photos/摄影: Ovidiu Micsa

Gross floor area/总建筑面积: 6311.0m²

Key materials: Façade – polycarbonate

主要材料, 立面——聚碳酸酯

Overview

The IT&C business incubator will be part of a territorial network of similar equipments and will serve as an urban landmark within a wider project that aims to change the use of an old industrial site.

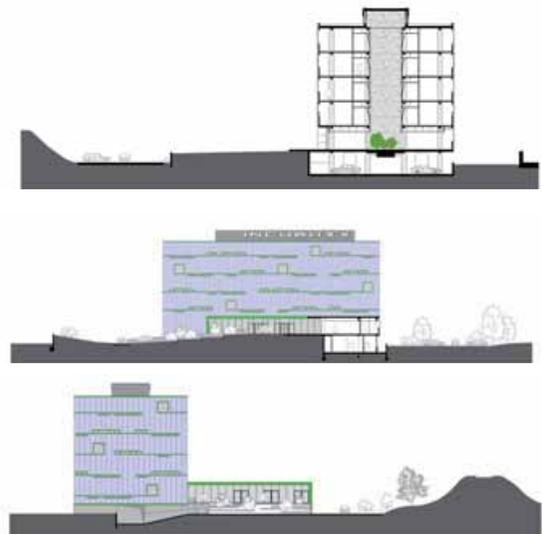
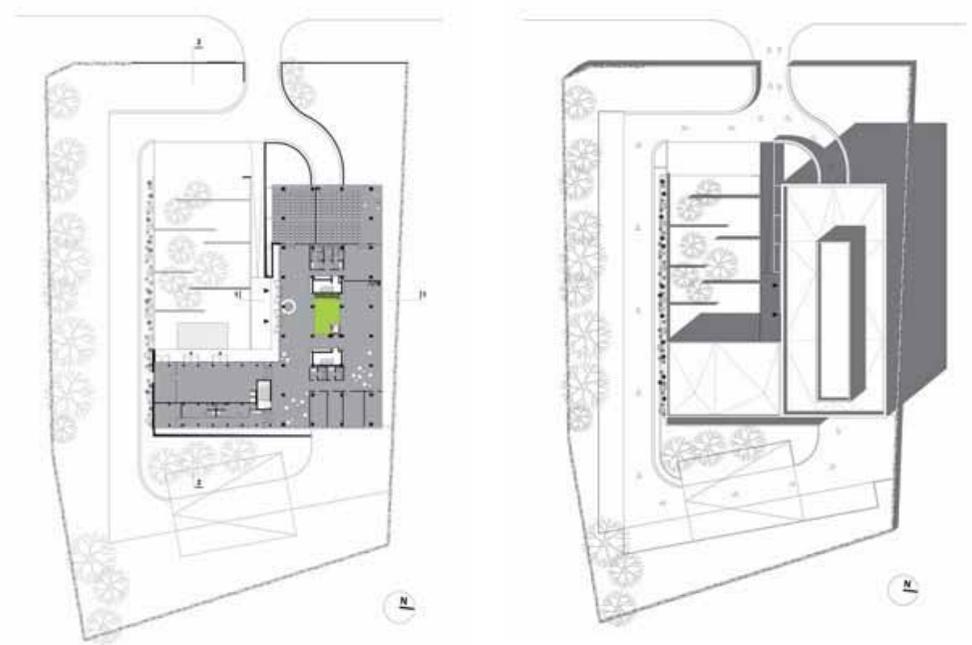
INCUBOXX is a council building meant for young graduates who want to start a business within the IT&C sector. For this reason, the building is equipped to serve firms in two business stages: the incubation stage (3 years) and the consolidation-development stage (2 years). Exhibition spaces, conference rooms, a cafeteria, a gym, a climbing wall and a terrace are all at any young business man's disposal at INCUBOXX. As a result, the colour and material selection for the design is inspired by two main concepts: youth

and sustainability.

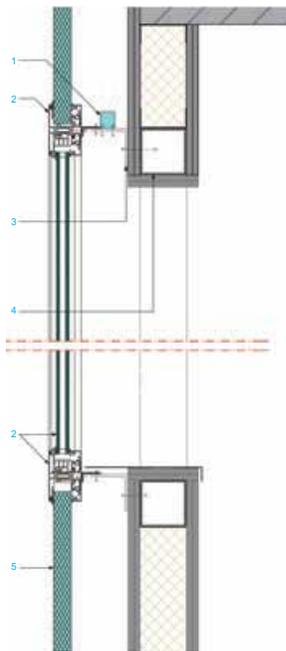
Located on a problematic site, between the slope of a train track and a busy boulevard crossing a derelict industrial area, the building's purpose is to improve the land it sits on both visually and functionally while containing its activity within a medium-sized volume (21,070 cubic metres).

Detail and Materials

The design follows landscaping principles: the artificially folded land integrates the slope of the train track and rises the ground floor. The main office building's west façade faces the boulevard, offering a colourful background for urban activity. The blue translucent skin, which changes its colour during the day and glows during the night



is made from polycarbonate. Reminding of a circuit board, it is mounted on the horizontal structural grid which expresses itself through the horizontality of the windows. From the inside, these windows frame views of the city at eye level.



Facade detail 1

1. Linear and modular illuminator, for accent light, with 5 LEDs, alimentation tension 230V, IP20, 32x35mm, lifespan 50,000
2. CK19C® Windows with semi-mirror glass in glazing system and aluminum joinery with thermal barrier, double special profiles which ensures fixing the 40mm polycarbonate, thermal transfer coefficient=1.4W/m2K
3. Laminated "L" profile with even wings, 80x80x6mm fixed on the plasterboard railing on metallic structure
4. Steel pipe 100x100x4mm, for façade support
5. Panel from cellular polycarbonate with joints, thermal transfer coefficient U=1.26w/m2K, colour blue, transparency – mat/opalescent, infrared protection, wind proofing system

Facade detail 2

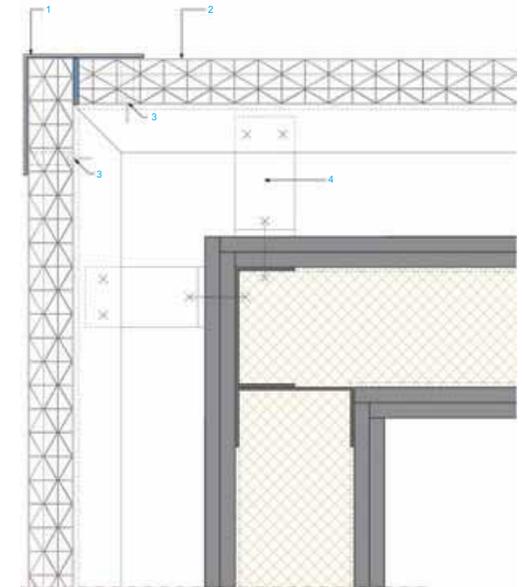
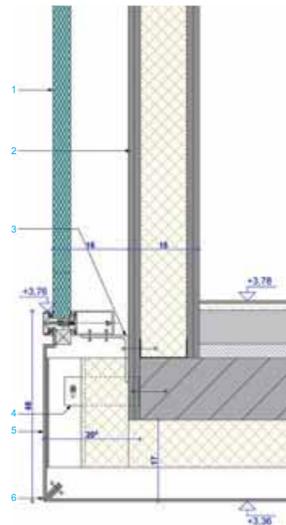
1. Panel from cellular polycarbonate with joints, thermic transfer coefficient U=1.26 w/m2K, colour blue, transparency – mat/opalescent, infrared protection, wind proofing system
2. Plasterboard railing, fire-resistant 30 min, structure with UA100 steel profiles, 3mm zinc plated, double plated on 3 sides with 12.5cm plasterboard panels, full finish, colour white
3. Laminated "L" profile with uneven wings, 100x50x6mm fixed on the plasterboard railing on metallic structure
4. Adjustable fixing system, steel structure, for façade panel "bond" type
5. Panels for façade plates type "bond" with two aluminum plates 0.5mm and polyethylene core
6. Joint at 45° angle between bond panels

立面节点1

1. 条形模块化照明装置，用于重点照明，配有5个LED灯，电压230v，IP20，32x35mm，寿命50,000
2. CK19C®窗，配半镜面玻璃和断桥铝框，双层特殊型材，用于固定40mm聚碳酸酯板，传热系数=1.4W/m2K
3. L形层压型材，80x80x6mm，固定在石膏板栏杆的金属结构上
4. 钢管100x100x4mm，用于立面支撑
5. 多孔聚碳酸酯板，带接缝，传热系数=1.26w/m2K，蓝色，半透明，防红外线，防风

立面节点2

1. 多孔聚碳酸酯板，带接缝，传热系数=1.26w/m2K，蓝色，半透明，防红外线，防风
2. 石膏板栏杆，耐火时间30分钟，UA100钢结构，3mm镀锌，三面双层电镀锌，12.5cm石膏板，全饰面，白色
3. L形层压型材，100x50x6mm，固定在石膏板栏杆的金属结构上
4. 可调节固定系统，钢结构，用于固定立面板材
5. 立面板材，由双层铝板和聚碳酸酯内芯构成
6. 板材间45°角接缝



Polycarbonate detail

1. Profile bent at 90° from compacted polycarbonate, 2mm, colour as façade, glued with silicon adhesive, UV resistant
2. Panel from cellular polycarbonate with joints, thermic transfer coefficient U=1.26 w/m2K, colour blue, transparency – mat/opalescent, infrared protection, wind proofing system
3. Mechanical fixing for polycarbonate
4. Laminated "L" profile with uneven wings, 100x50x6mm fixed on the plasterboard railing on metallic structure

聚碳酸酯板节点

1. 弯折90度聚碳酸酯型材，2mm，色彩同立面，硅胶粘合，防紫外线
2. 多孔聚碳酸酯板，带接缝，传热系数=1.26w/m2K，蓝色，半透明，防红外线，防风
3. 聚碳酸酯板机械固定
4. L形层压型材，100x50x6mm，固定在石膏板栏杆的金属结构上

项目概况

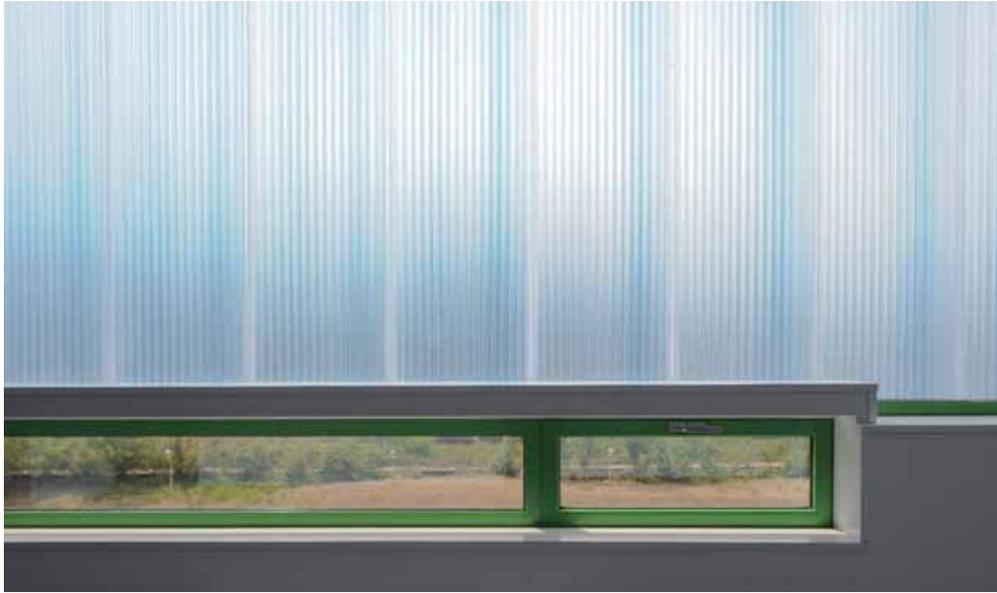
蒂米什瓦拉产业孵化中心是当地大规模老工业基地改造项目的一部分，将成为当地的一处地标式建筑。

产业孵化中心将为年轻的毕业生提供创业空间。建筑为创业公司提供两个阶段的服务：孵化阶段（3年）和巩固发展阶段（2年）。根据需求，中心为创业公司提供了展览空间、会议室、餐厅、健身房、攀岩墙、露台等服务设施。因此，建筑的色彩与材料主要从两方面获得了灵感：年轻和可持续性。

项目场地比较复杂，位于火车道的坡道和一条穿越废弃工业区的繁忙街道之间。建筑的目标是在功能和视觉上改善场地条件，以中等规模的空间结构（21,070平方米）展开商业活动。

细部与材料

设计遵循了造景原理：人造地势与火车道坡道融为一体，提升了建筑的水平高度。主办公楼的西立面朝向大道，为城市活动提供了彩色的背景。蓝色的半透明表皮由聚碳酸酯制成，在白天会随着日光而变换色彩，在夜间则会发出柔光。它像电路板一样，安装在水平结构网格上，后者透过水平向的窗口呈现出来。这些窗口为人们提供了舒适的城市风景。



Environmental Strategy

One of the main features of the building is the fact that it is self-sustained through passive cooling and natural lighting. The interior atrium is the element that supplies light and ventilation to the core of the building. For the rentable office space, the windows provide both the optimum air exchange and natural lighting, while the translucent polycarbonate façade filters and optimises the light levels. At ground level, the vertical systematisation within the landscape allows for the car park to be hidden from view, covered by the land and also naturally ventilated. Additionally, the folded landscape and intensive planting creates a microclimate in which the air movement is controlled in order to keep a

环境策略

被动式制冷和自然采光都是建筑的主要特征。中庭为建筑内核提供了采光和通风。在出租办公空间，窗户既提供了适当的空气交换，又提供了自然采光，半透明聚碳酸酯立面能过滤和优化采光等级。建筑底层的垂直景观系统将停车场遮挡起来，同时也实现了它的自然通风。此外，叠层景观和茂密的植被所营造出的微环境不仅能通过温和的空气流动保持建筑周围在夏季稳定的气温，还能使建筑与交通噪声隔开。

经济策略

产业化中心是一座高成本效益建筑，这体现在两个方面：它的建造成本和运营成本都低于蒂米什瓦拉的其他办公建筑。建筑用更经济实用的多层隔热聚碳酸酯板替代了典型的玻璃幕墙，从而缩减了建造成本。此外，由于创业公司需要将运营成本降到最低，设计策略围绕着可再生能源法则展开。中庭就是设计中被动式制冷策略的典范。通过烟囱效应，它能自然地实现建筑中央区域的通风，同时引入自然采光，从而让建筑在夏季不必采用机械通风，在白天不必采用人工照明。另一个设计典范是办公空间：窗户能实现自然通风，而半透明聚碳酸酯板能过滤自然光。

总而言之，空间内的光线、中庭、入口处显眼的餐厅、健身房、建筑材料、楼层装备等共同构成了这个独特的办公空间，为创业型信息技术公司提供了必要的环境服务，帮助蒂米什瓦拉的青年毕业生实现自己的创业梦想。

stable temperature around the building during the summer while also protecting the interior space from traffic noise.

Economical Strategy

INCUBOXX is a cost-effective building due to two main aspects: it was cheaper to build and it has lower running costs than other office buildings in Timisoara. The construction budget was met through substituting the typical glass façade with a more efficient and cost-effective material: the multilayered heavily insulated polycarbonate. Moreover, because the running costs needed to be as low as possible for the newly graduate tenants, the design revolves around renewable energy principles. The atrium is a good example for the design's

passive cooling strategy. Using the stack effect, it naturally ventilates the central area of the building while also bringing natural light in, eliminating the need for mechanical ventilation during the summer and artificial lighting during the day. Another good example is the office space, where the windows exclude the need for artificial ventilation, while the translucent polycarbonate provides filtered natural light.

To summarise, the light within the space, the atrium, the cafeteria dominating the entry sequence, the gym, the materials used and the level of the equipment define a unique work space for the new IT firms and supply the environmental support needed to develop the creativity and skills of young graduates from Timisoara.

