

Resolution of Council

9 September 2019

Item 13.6

Moss Culture Air Purification

Moved by Councillor Scott, seconded by Councillor Miller –

It is resolved that:

- (A) Council note:
- (i) research has shown that certain moss cultures make ideal air purifiers, with many having the ability to filter and absorb air pollutants such as particulates and nitrogen dioxide;
 - (ii) recently progress has been made in the use of moss cultures in city designs:
 - (a) this includes but is not limited to the German startup, 'Green City Solutions', who have developed the CityTree, which has been hailed as the world's first intelligent biological air filter;
 - (b) the CityTree comprises a bench which is equipped with a "living wall" of moss types that are able to naturally absorb pollution;
 - (c) the design, which comprises a bench and vertical vegetation wall, takes up a fraction of the space that would be needed to yield the same air-purifying results using 275 real trees;
 - (d) the wall of irrigated moss also generates a cooling effect on the surrounding area, helping to combat the urban heat island effect; and
 - (e) additionally, the CityTree also has built-in watering and Internet of Things (IoT) monitoring, which maintains and measures the performance of the living structure; and

- (iii) the City of Sydney is currently working to improve the public domain in the Sydney CBD, particularly along the new light rail corridor. This provides an opportunity for the City to implement new and innovative ideas for improving public space and the City's urban canopy; and
- (B) the Chief Executive Officer be requested to:
- (i) investigate the feasibility of incorporating moss culture purification, such as the CityTree, in future public domain works, particularly in the upcoming improvements of the light rail corridor; and
 - (ii) conduct a preliminary location analysis for the best locations for the optimal impact of the technology across the Local Government Area.
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Note – the motion above was not carried. The resolution below was carried.

It is resolved that:

- (A) Council note:
- (i) research has shown that certain moss cultures make ideal air purifiers, with many having the ability to filter and absorb air pollutants such as particulates and nitrogen dioxide;
 - (ii) recently progress has been made in the use of moss cultures in city designs:
 - (a) this includes but is not limited to the German startup, 'Green City Solutions', who have developed the CityTree which has been hailed as the world's first intelligent biological air filter;
 - (a) the CityTree comprises a bench which is equipped with a "living wall" of moss types that are able to naturally absorb pollution;
 - (b) the design, which comprises a bench and vertical vegetation wall, takes up a fraction of the space that would be needed to yield the same air-purifying results using 275 real trees;
 - (c) the wall of irrigated moss also generates a cooling effect on the surrounding area, helping to combat the urban heat island effect; and
 - (d) additionally, the CityTree also has built-in watering and Internet of Things (IoT) monitoring, which maintains and measures the performance of the living structure;
 - (iii) the City of Sydney is currently working to improve the public domain in the Sydney CBD, particularly along the new light rail corridor. This provides an opportunity for City to implement new and innovative ideas for improving public space and the City's urban canopy; and
- (B) the Chief Executive Officer be requested to investigate the feasibility of incorporating moss culture purification, such as the CityTree, in future public domain works as part of the Sustainable Sydney 2050 Plan.

Carried unanimously.

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