

FURNISH

Design Brief

SUMMARY

FURNISH is organizing an open call to select 4 teams throughout Europe which will digitally fabricate and deploy urban elements for the purpose of adapting temporary public spaces to meet the new challenges and opportunities presented by the COVID-19 crisis. FURNISH aims to merge the challenge of gaining more public space through 'tactical urbanism', which can reconfigure a street to expand the area for pedestrians and leisure, with local digital manufacturing. The call is open to Fab Labs, research groups, designers or makers able to produce rapid solutions to the urgent spatial problems and opportunities posed by the novel coronavirus. Interested teams must submit their qualifications between September 10 and September 25, along with a declaration of responsibility for testing their designs with end users and (not compulsory but favourable) evidence of having sought a letter of support from a local institution expressing interest in hosting the pilot installation (e.g. a municipality, university campus, cultural centre, etc.). The objective is to develop the designs and prototypes in collaborative workshops featuring all the selected FURNISH teams, therefore it is not necessary to have a design prepared to apply. Pilot installations will be installed and tested by December. Each selected team will receive up to 10.000€ to fund the fabrication and implementation of their prototypes. All designs developed under the FURNISH project will be documented in an open-source format, enabling replication anywhere in the world. To learn more, register for automatic updates or submit an application, please visit: www.furnish.tech.

BRIEF & REGISTRATION

Many European cities are looking to redesign their public spaces. After the COVID-19 lockdown, public spaces became too crowded, making it impossible to ensure safe social distancing.

FURNISH (Fast Urban Responses for New Inclusive Spaces and Habitat) aims to merge the challenge of having more public spaces through 'tactical urbanism', which can reconfigure a street expanding the space for pedestrians and leisure, with local digital manufacturing, through the quick and effective deployment of urban elements in a neighbourhood.

FURNISH will organize an open call for projects, whose goals go further than preventing the spread of COVID-19 by enlarging public spaces, to also increase local digital fabrication capacities.

Recently, we have observed that society is more than ready to collaborate to fight against COVID-19, as demonstrated by the decentralized provision of digitally fabricated materials to medical staff during the pandemic. FURNISH aims to empower local citizens by giving them a chance to participate in the creation of their own city's new image, and to

create a community of 'tactical urbanism first responders' empowered by digital fabrication.

Participating teams will work on new mobility projects and design temporary mobile urban elements to reconfigure public spaces. The proposals will envision the reorganization of public spaces through the deployment of these temporary urban elements.

Ultimately, the process will result in pilot installations documented as an open-source repository of knowledge related to urban planning, mobility, social behavior, and temporary urban elements that can be reproduced anywhere in the world.

AIMS

FURNISH promotes the following principles.

- **Catalyze mobility solutions for 21st century cities**

The mission of the EIT Urban Mobility

initiative includes demonstrating how new technologies can work to transport people, freight and waste in smarter ways; decarbonizing mobility; boosting the competitiveness of the mobility industry; encouraging all urban mobility stakeholders to work together; and decongesting mobility networks. Decongesting mobility networks is especially relevant in the COVID-19 era due to the newfound need for maintaining safe physical distance. FURNISH proposals will help to further this mission.

- **Public space expansion**

Due to necessary reduction of pedestrian density to avoid congestion, new public spaces will need to be gained, often in a temporary way. FURNISH proposals will help expand public space in areas temporarily cut off from circulation or otherwise gained.

- **Increased distance for social cohesion**

Increased physical distance should not imply increased social distance. FURNISH proposals will incorporate lack of congestion as a positive value, prompting public space appropriation and helping to generate new communities and reinforce existing ones.

- **Indoors to outdoors**

Many activities traditionally happening indoors may begin to happen outdoors. FURNISH proposals will facilitate cultural, educational, recreational and commercial activities to take place in public space,

- **DIY**

Both the construction and customization of the physical urban elements and their onsite implementation, activation and use must be simple and open in order to facilitate scaling and replication. FURNISH proposals will foster DIY logs in both the object and its implementation in public space.

- **Resilience and sustainability**

The horizon of sustainability must

be addressed in all its complexity: material, economic, social and ecological. FURNISH proposals will promote 1) full life cycle consideration of the materials used 2) economic sustainability 3) city resilience and social cohesion 4) positive influence on health, wellbeing and ecological systems.

BACKGROUND

About EIT Urban Mobility

EIT Urban Mobility aims to accelerate solutions and the transition towards a user-centric, integrated and truly multimodal transport system. As the leading European innovation community for urban mobility, EIT Urban Mobility works to avoid fragmentation by facilitating collaboration between cities, industry, academia, research and innovation to solve the most pressing mobility challenges of cities. Using cities as living labs, its industry, research and university partners will demonstrate how new technologies can work to solve real problems in real cities by transporting people, goods and waste in smarter ways.

For more information visit: ***www.eiturbanmobility.eu***.

RULES OF ENTRY

ELIGIBILITY

The FURNISH call for applications will be open to teams throughout Europe.

All teams must comprise a design entity (professional, academic or institutional), as well as a fabrication facility from the same municipality.

All teams are additionally required to provide a declaration of responsibility for testing their designs with end users and (not compulsory but favourable) evidence of having sought a letter of support from a local institution expressing interest in hosting the pilot installation (e.g. a municipality, university campus, cultural centre, etc.).

SELECTION

A total of 7 teams will participate - 4 selected through the open call and 3 headed by the FURNISH design partners (UPC/Elisava/IAAC).

As this project intends to create a common workspace based on collaboration, all 7 teams will take part in a series of virtual workshops led by these partners, so that all 7 projects benefit from awareness of

one another and access to the other teams' expertise.

The priority of the FURNISH jury in determining the 4 teams selected through the open call will be their respective logistical capability to complete a prototype installation addressing the problems of public space resulting from COVID-19 within the FURNISH timeline and budget. Secondly, the FURNISH jury will determine the 4 teams selected through the open call to optimize diversity in terms of the solutions proposed, the strategies proposed for their realization, geographic distribution and team composition.

REQUIREMENTS

Because the projects are intended to be developed collaboratively, applicants are NOT expected to have a design prepared at the time of application.

Rather, applicants are asked to specify the type of design they propose to develop in the collaborative setting described above.

More detailed information regarding how to apply, including the complete Rules of Entry and Submission Templates, are currently available for download at:

<https://furnish.tech/archive/>

TIMELINE

The call will open for applications on September 10, and close on September 25.

The collaborative design development and prototyping will occur from October 5 through November 15.

Testing of the prototypes in an operational environment will occur from November 15 through November 30.

The final report and open source documentation will be completed between December 1 and December 15.

PRIZES

Participating teams will be awarded a grant of up to 10.000€ each to develop and fabricate their prototypes.

Participating teams will also receive mentoring by the FURNISH design partners (UPC/Elisava/IAAC) through the collaborative process referenced above.

Additionally included in the award is communication and dissemination coordinated by the centralized EIT Urban Mobility working group.

FURNISH

Generator of Strategic Design Approaches

MATRIX

for expanded design approaches

FURNISH Generator is a tool to help explore and expand the design possibilities afforded by FURNISH Open Innovation. To prompt varied and diverse design approaches within the FURNISH framework, participants may use a combinatory matrix that generates strategic design approaches to then be developed by each team. The matrix is composed of six columns, each of which identifies a decision-making field: the specific challenge to be addressed, the urban situation, the temporal range, the spatial format, the performance and the fabrication technique. The cross-pollinating dynamics between these fields suggest multiple design approaches to explore a vast array of Fast Urban Responses for New Inclusive Spaces and Habitats.

CHALLENGES	URBAN SITUATION	TEMPORALITY	SPATIAL FORMAT	PERFORMANCE	FABRICATION
C1 Creative industries	U1 Polar	T1 Hours	S1 Autonomous Object	P1 Celebration	F1 Sectioning
C2 School recreational areas	U2 Vectorial	T2 Days	S2 Contingent Object	P2 Shared daily rituals	F2 Tesselating
C3 Local commerce	U3 Interstitial	T3 Weeks	S3 System	P3 Activism and debate	F3 Folding
C4 Sports and leisure urban areas			S4 Atmosphere	P4 Self-care and self-sufficiency	F4 Contouring
C5 Civic resilience				P5 Game/Chance	F5 Forming

CHALLENGES

Typological study of different problematic issues from the current COVID-19 context of emergency, which open opportunities for fast urban responses and direct actions for the articulation of new safe outdoor spaces for multiples temporary uses.

C1



Creative industries

Safe outdoor spaces for cultural production.

C2



School recreational areas

New outdoor recreational and relational areas for school and after-school activities.

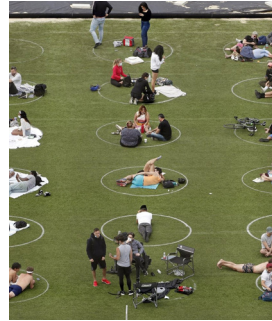
C3



Local commerce

New outdoor spaces to boost the local commercial activities.

C4



Sports and leisure urban areas

New equipment of public space for safe outdoor leisure activities.

C5



Civic resilience

New urban spaces for free expression, participation, direct action and citizen empowerment.

URBAN SITUATION

Typological definition of the different topographical conditions of the places of opportunity, considering the existing characteristics of the urban layout and the pre-established dynamics in the urban voids.

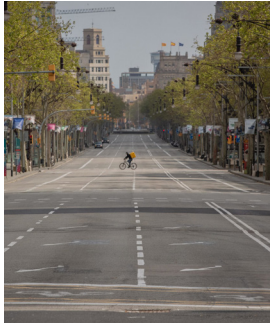
U1



Polar

Clearly delimited urban areas, mainly urban voids with a predominant pedestrian use like squares, urban parks and gardens, etc.

U2



Vectorial

Strongly directional or linear spaces mainly urban arteries used for transit and vehicles transportation like boulevards, streets, etc.

U3



Interstitial

In-between urban spaces, mainly underused inter-communitarian areas in dense residential districts, like courtyards, pedestrian community hubs, etc.

TEMPORALITY

Typological definition of three different time periods of activation, which enclose basically the phase of action or active exploitation of the intervention.

T1



Hours

Immediate disruptive appropriations, which can last from some minutes to several hours.

T2



Days

Temporary interventions with an overnight capacity, which can last from a day to a whole week.

T3



Weeks

Temporary interventions with capacity for persistence, which can last from a week to an unspecified period of time.

SPATIAL FORMAT

Typological definition of the physical characteristics of the format of intervention, which considers the temporary structural relationship with the existing context and the spatial layout of both the intervention and the produced interactions with the surroundings.

S1



Autonomous Object

Independent self-supporting objects, which allow multiple insertions in diverse urban contexts, adopting different scale formats—from urban furniture to pop-up installations.

S2



Contingent Object

Objects which depend structurally on the existing built environment or establish interdependent relationships with the citizens, adopting different scale formats—from accessories, wearables and relational artefacts to parasitizing urban structures.

S3



System

Systems, that allow multiple configurations and adapt dynamically to the specific conditions of the place.

S4



Atmosphere

Dynamic atmospheres, which alter temporarily the environmental conditions of the place (light, sound, fog, humidity, etc.), generating experiential situations applying scenographic or choreographic logics.

PERFORMANCE

Typological study of different practices of activation of relational contexts of interaction, openness and spontaneity, which explores multiple areas of action— everyday situations, bottom-up self-managed initiatives, co-creative radical practices, etc.

P1



Celebration

Festive or celebrative programmes (e.g., parties, fairs, commemorations, etc.) which have the capacity to generate new traditions and to agglutinate new communities.

P2



Shared daily rituals

Simple group or individual practices of entertainment and socialisation ((e.g., eating, chatting, singing, laughing, playing sports, etc.), which promote shared everyday situations of affect and interaction.

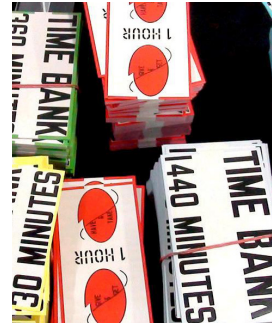
P3



Activism and dissent

Creative practices of activism and radical democracy (e.g., assemblies, radio stations, free expression stages, etc.), which stimulate cultural divergence and dissent.

P4



Self-care/Self-sufficiency

Tactical practices of self-care and self-sufficiency (e.g., social aid units, markets for services exchange, etc.), exploring alternative ecologies and economies and new emergent forms of co-living.

P5



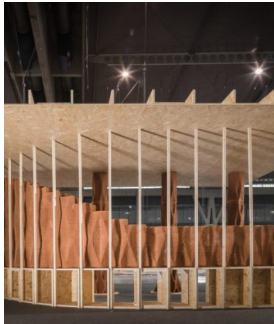
Game/Chance

Relational practices which use game formats, chance-based dynamics and surprise (e.g., ephemeral playgrounds, playful interactive installations, expanded urban games, etc.),

FABRICATION

Typological study of different techniques of fabrication, which considers the performance of the materiality and the specificity of the processes of production and assembling.

F1



Sectioning

Slicing a form into layers, fabricated from planar materials, well-suited to laser-cutting and/or CNC machining. These layers are often then assembled by stacking or intersecting, exploring also manipulation of non-planar components.

F2



Tessellating

Subdivision of a form into smaller units that fit together, often in the manner of cells, enabling assemblage of easily manipulated large forms, which can be fabricated from standard planar materials with laser-cutting, CNC machining, or out of 3D subunits.

F3



Folding

Transforming a planar surface into a 3D object through creasing and/or bending by material manipulations by laser-cutting or CNC-machining. Folding can also be combined with tessellating to produce individual subunits from planar materials.

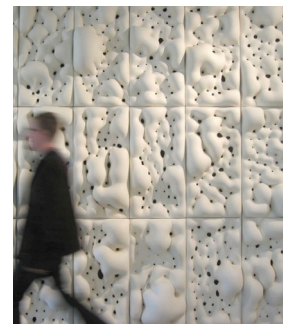
F4



Contouring

Reshaping of surfaces and creation of 3D relief by successively removing layers of material. It is well suited to planar materials processed with CNC machining. It can also be combined with tessellating to produce individual subunits from planar materials.

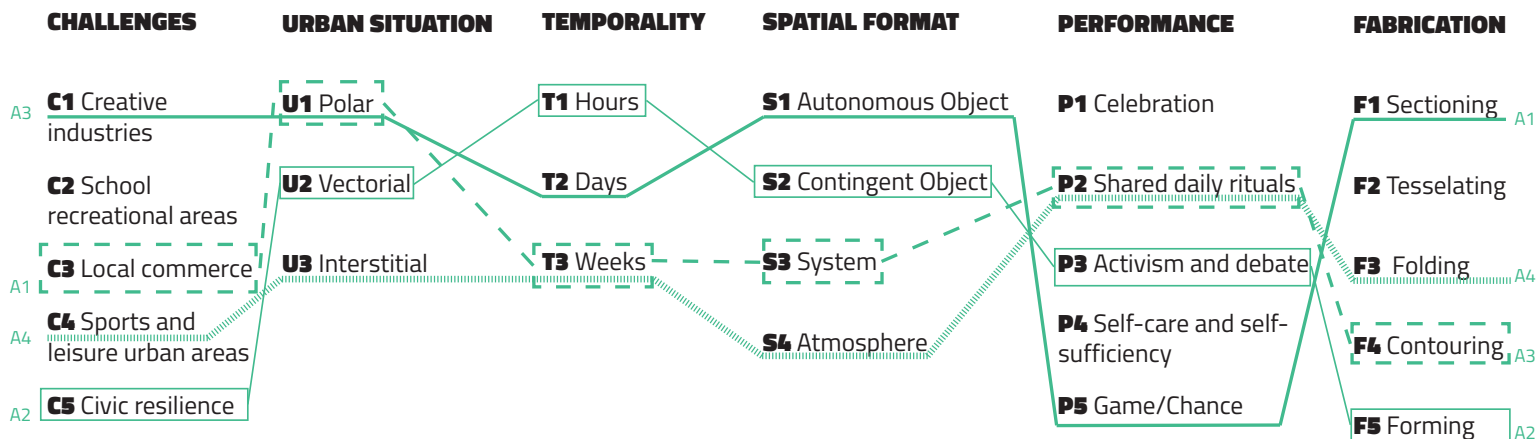
F5




Forming

Production of a 3D object filling the negative space of a container or mold. Forming can be combined with contouring, sectioning or tessellation.

EXAMPLES of possible design approaches




Relational furniture

A1  **Example:** A dynamic system of elements, which allows multiple configurations of temporary collective areas of seating and market kiosk applying the necessary safe physical distance as a basic assembling principle. The system is installed on squares and intercommunal areas in order to promote spontaneous collective appropriations during several weeks.

Radical disruptions

A2  **Example:** Fast street peatonalization through the insertion of an ephemeral radio platform for free citizen expression, structurally sustained by the existing urban infrastructure.

Movable artefacts

A3  **Example:** A bicycle driven unit of activation, which is installed by surprise on different squares, promoting a continuous playful environment, where the city is the game board itself.

Cumulatively transformative interventions


A4  **Example:** A co-created process of reconditioning of an underused inter-communal yard through the installation of a sound-light interactive system, which generates a dynamic array of new common places of entertainment.

Image References

CHALLENGES

- C1** 200422_ Live Concerts on a Heavy Construction Machinery_ Lebanon
https://www.instagram.com/p/B_Sy_yFHf1Q/
- C2** 200413_ Open-Air Examination_ Hanzong, China
<http://m.cnwest.com/sxxw/a/2020/04/13/18656380.html>
- C3** 200516_ Temporary Safe Organization of a Street Market_ Kalaw, Myanmar
<https://www.pps.org/article/the-recovery-will-happen-in-public-space>
- C4** 200517_ Safe Social Distancing_ Brooklyn, New York
<https://www.mprnews.org/episode/2020/06/05/how-to-assess-risk-during-a-global-pandemic>
- C5** 200316_ Activism in Hazmat Suits_ London
<https://www.dazeddigital.com/life-culture/article/48387/1/activists-in-hazmat-suits-protest-the-uk-government-coronavirus-plan>

URBAN SITUATION

- U1** 200414_ Empty Public Spaces_ Piazza San Marco_ Venecia
<https://www.traveler.es/viajes-urbanos/articulos/webcams-camaras-italia-vacia-ciudades-sin-gente-en-tiempo-real-crisis-coronavirus/17823>
- U2** 200503_ Empty Public Spaces_ Passeig de Gràcia_ Barcelona
<https://www.totbarcelona.cat/societat/barcelona-confinada-suspen-contaminacio-atmosferica-54736/>
- U3** 151103_ Interstitial Spaces in Residential Complexes_ Sofia_ Bulgaria
<http://stroitelstvoinoti.com/>

TEMPORALITY

- T1** Colomer, Jordi, JoinUS, 2015
- T2** Aberrant Architecture, The Tiny Travelling Theatre, London, 2012
- T3** Palma Studio, Aros, Mexico City, 2018

SPATIAL FORMAT

- S1** Wodiczko, Krzysztof, Poliscar, NYC, 1991
- S2** Orta, Nexus Architecture, 1993-1998
- S3** Invisible Playgrounds, Black Factory, Muelheim, Germany, 2013
- S4** Playmodes, MEATS, ELISAVA, Chased, Girona, 2019

PERFORMANCE

- P1** Enorme Studio, Fake Fasten Tomatina, Madrid, Spain, 2013
- P2** ORTA, 70X7 The Meal Event, Dieuze, 2000
- P3** Hemmer, Rafael Lozano, Voz Alta, Mexico City, Mexico, 2008
- P4** Aranda, Julieta and Anton Vidokle, Time/Bank, NYC, USA, 2010-
- P5** Assemble Studio, The Big Slide, London, 2012

FABRICATION

- F1** IAAC & Tecnalia, On Site Robotics, Barcelona
- F2** Brennan Buck, Technicolor Bloom, Vienna
- F3** LAVA Architects, Entry Paradise Pavilion, Zollverein
- F4** Urban AOA, Bone Wall, New York
- F5** Andrew Kudless & Matsys, P Wall, San Francisco