

EPUAP 2021 Virtual Meeting

18-19 October

- Challenges in the Healthcare Education During the Pandemic and the Benefit of Simulation Techniques.



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2 Conflict of interests

I have no potential conflict of interest to report



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Opportunities in the Healthcare Education During the Pandemic and the Benefit of Simulation Techniques.

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Virtual teaching (only for the pandemic time?)

- 
- Difficult feedback giving
 - Time demanding change
 - No/limited practical training
 - No/limited interaction

Virtual teaching (only for the pandemic time?)



- Possible asynchronous teaching
- Time-management
- Pre-learning for practical training
- Guaranteed quality
- A bit Anonymous
- Interaction in synchronous teaching

- Difficult feedback giving
- Time demanding change
- No/limited practical training
- No/limited interaction in asynchronous teaching



Virtual teaching (only for the pandemic time?)



- Possible asynchronous teaching
- Time-management
- Pre-learning for practical training
- Guaranteed quality
- A bit Anonymous
- Interaction in synchronous teaching




Virtual patients AKUTNE.CZ

RESUSCITATION OF COVID-19 POSITIVE PATIENT

Assoc. Prof. Martina Kosinová, MD, PhD, Tamara Skříšvská, Tereza Prokopová. Illustrations: Anita Bauerová



The general director of the World Health Organization (WHO) declared the COVID-19 infection a world pandemic situation on the 11 th March 2020. At the time, there is neither specific treatment nor vaccination available against COVID-19 infection. Everyone in the population is considered to be susceptible to this infection. The clinical features of COVID-19 infection vary from asymptomatic presentation to severe pneumonia and in the gravest cases can lead to death. In most of the cases (80%), the clinical presentation would correlate to mild respiratory infection and pneumonia. The severe cases with the high risk of death are connected with the elderly patients with comorbidities and chronic medical impairment. This algorithm aims to guide you through the essential safety precautions and deviations from the standard CPR approach, taking into account the risk of spreading the COVID-19 infection from the patient to the medical staff.

 INTERACTIVE ALGORITHM



SHORT TEST

Review

References

External links

ANAESTHESIA OF COVID-19 POSITIVE PATIENT

2020 

Deana Slovjaková, MD, Eva Klabusayová, MD. Illustrations: Eva Klabusayová



Number of patients infected with COVID-19 worldwide is still growing. The risk of transfer of infection to the medical personnel is high, especially when aerosol generating procedures are done, for example intubation. Anaesthesia of COVID-19 positive patients has it's specifics, which must be taken into account, due to safety of the patient and due to safety of the medical personnel as well. Algorithm will guide you through the basic steps of preparing anaesthesia team and workplace, correct use of personal protective equipment and uncomplicated airway management of COVID-19 positive patient undergoing surgery in general anaesthesia.

 INTERACTIVE ALGORITHM




Review

References

Related algorithms

Anaesthesia plan



You have made all safety measures. What will be your anaesthesia plan for this patient?

Anaesthesia induction doesn't have to be in RSI, intubation using direct laryngoscopy.

Anaesthesia induction in RSI, intubation with videolaryngoscopy.

Anaesthesia induction in RSI, intubation using direct laryngoscopy.

Anaesthesia induction doesn't have to be in RSI, intubation with videolaryngoscopy.

?

RR

HR

SpO₂

BP

ECG

16 bpm

70 bpm

95 %

140/80 mmHg

sinus rhythm, regular pace, BPM 70 bpm

Examination:

PA: HT, operation: ASC of the knee (GA without any complications), sickness: dry cough for 3 days, temperature 38 °C, now 37.8 °C, admitted to the hospital with shortness of breath and not severe respiratory insufficiency, oxygenotherapy: 3L/min.

PhA: Perindopril

allergies: PNC

weight: 70 KG, height: 185 CM

Gly

ABG

CBC

biochemistry

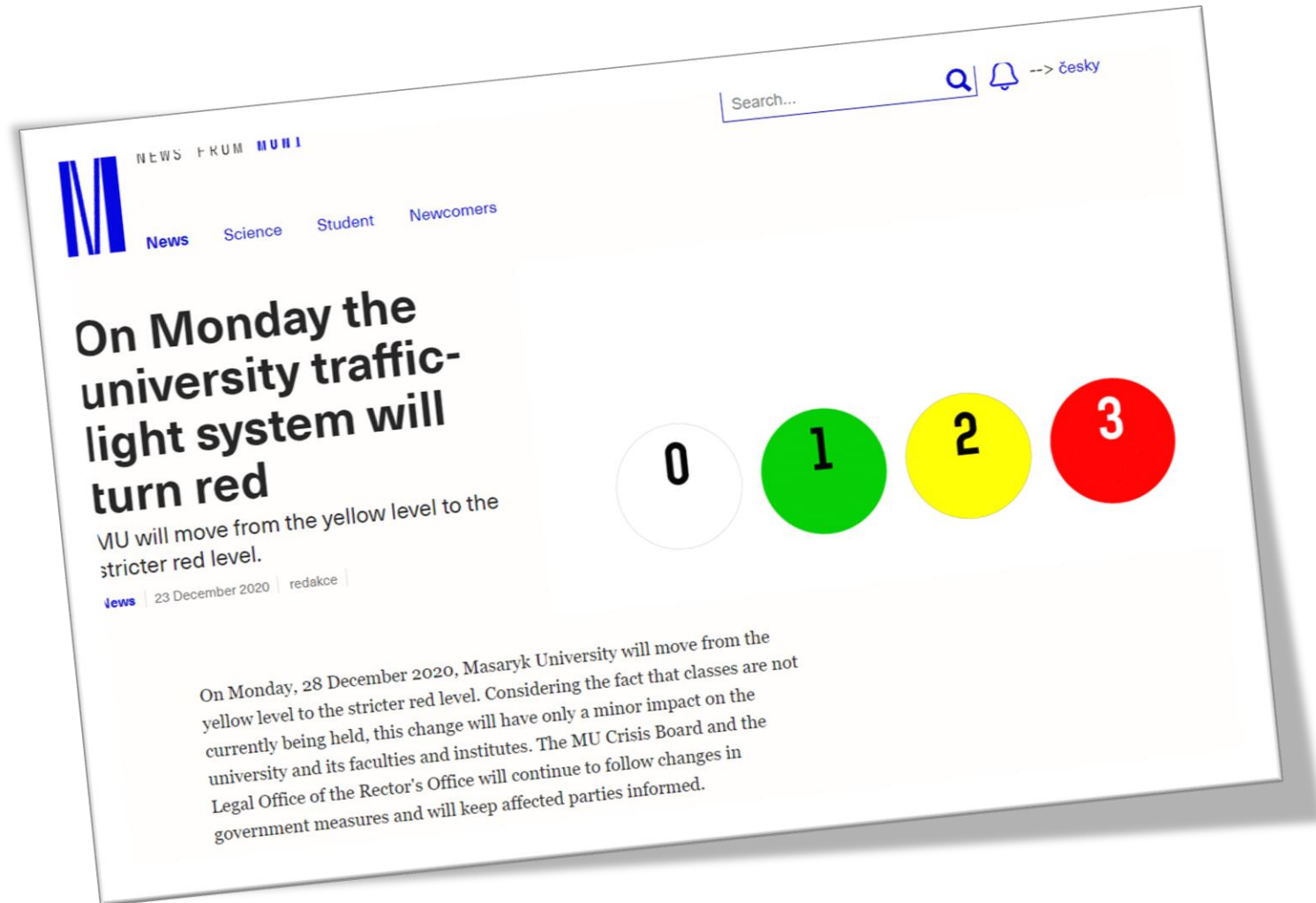
results

not available

results

results

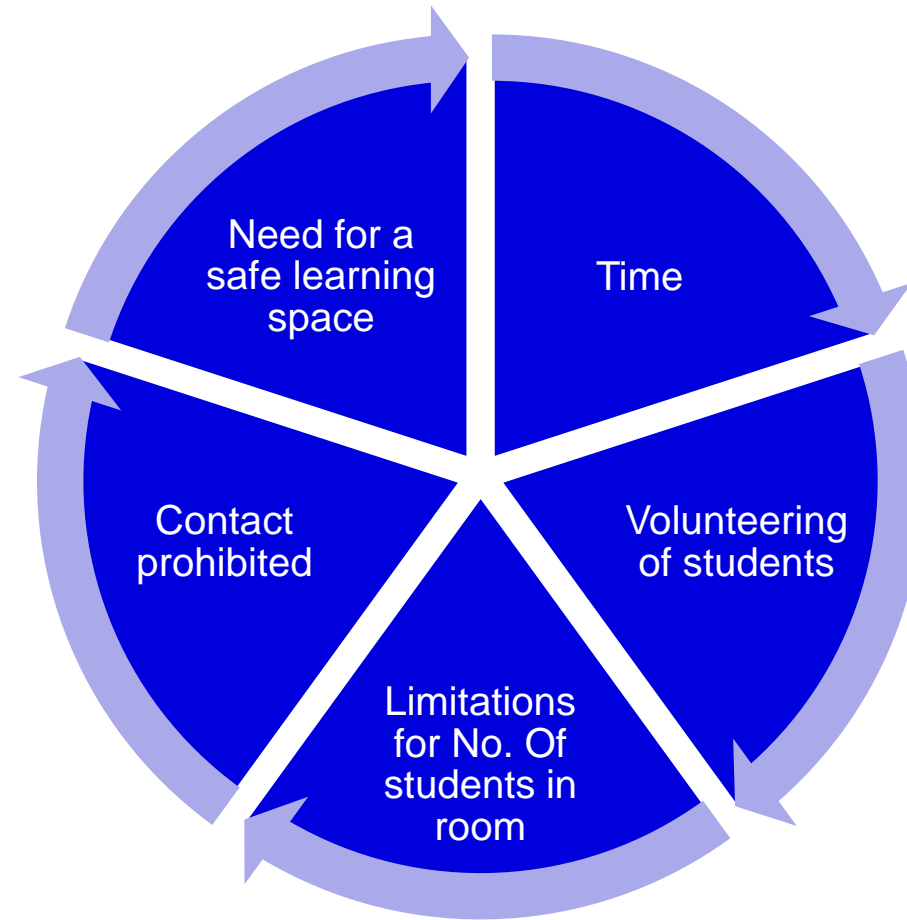
Year 2020 – COVID changed everything



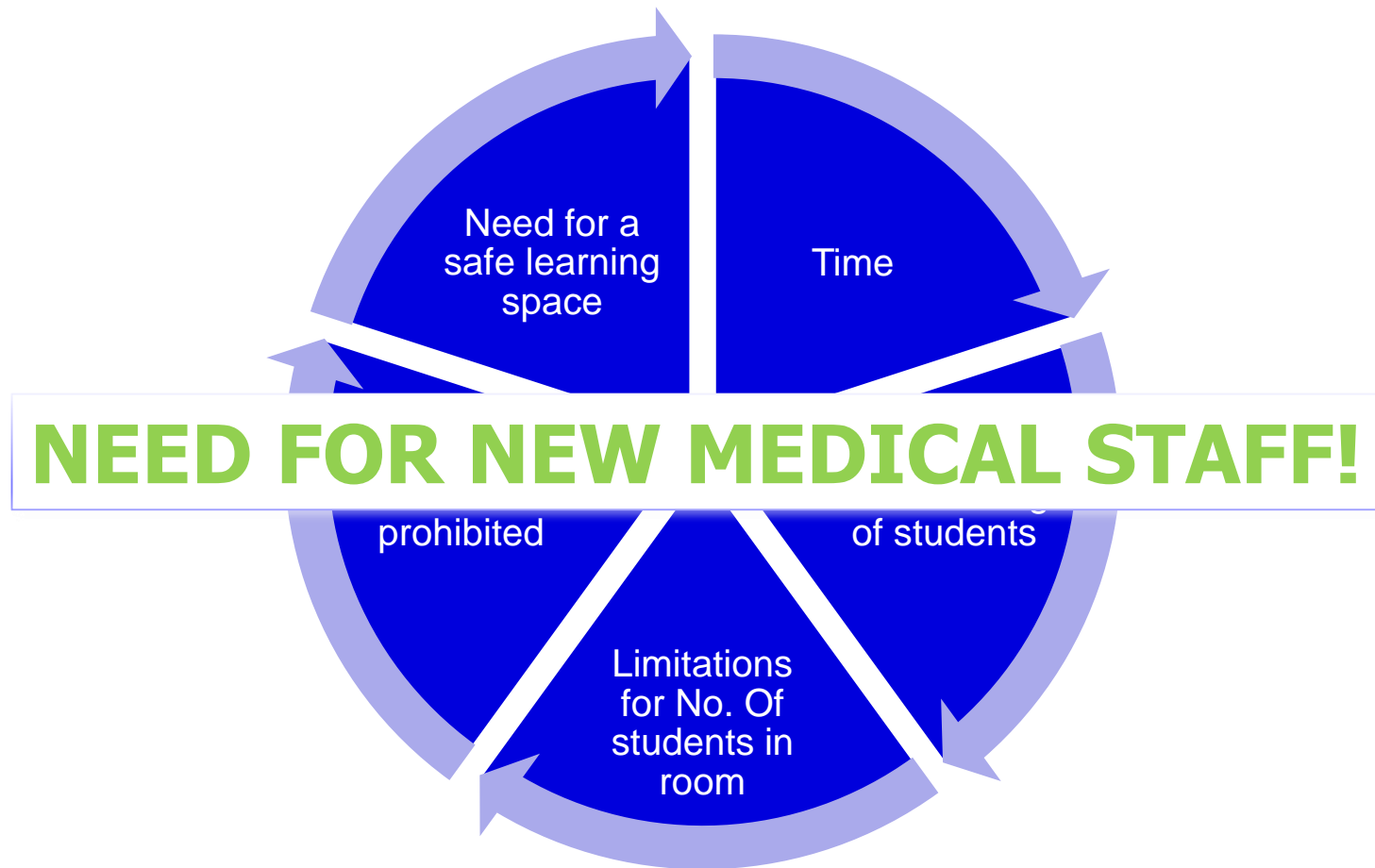
COVID pandemic

An opportunity for modern teaching
...hopefully not only in Brno!

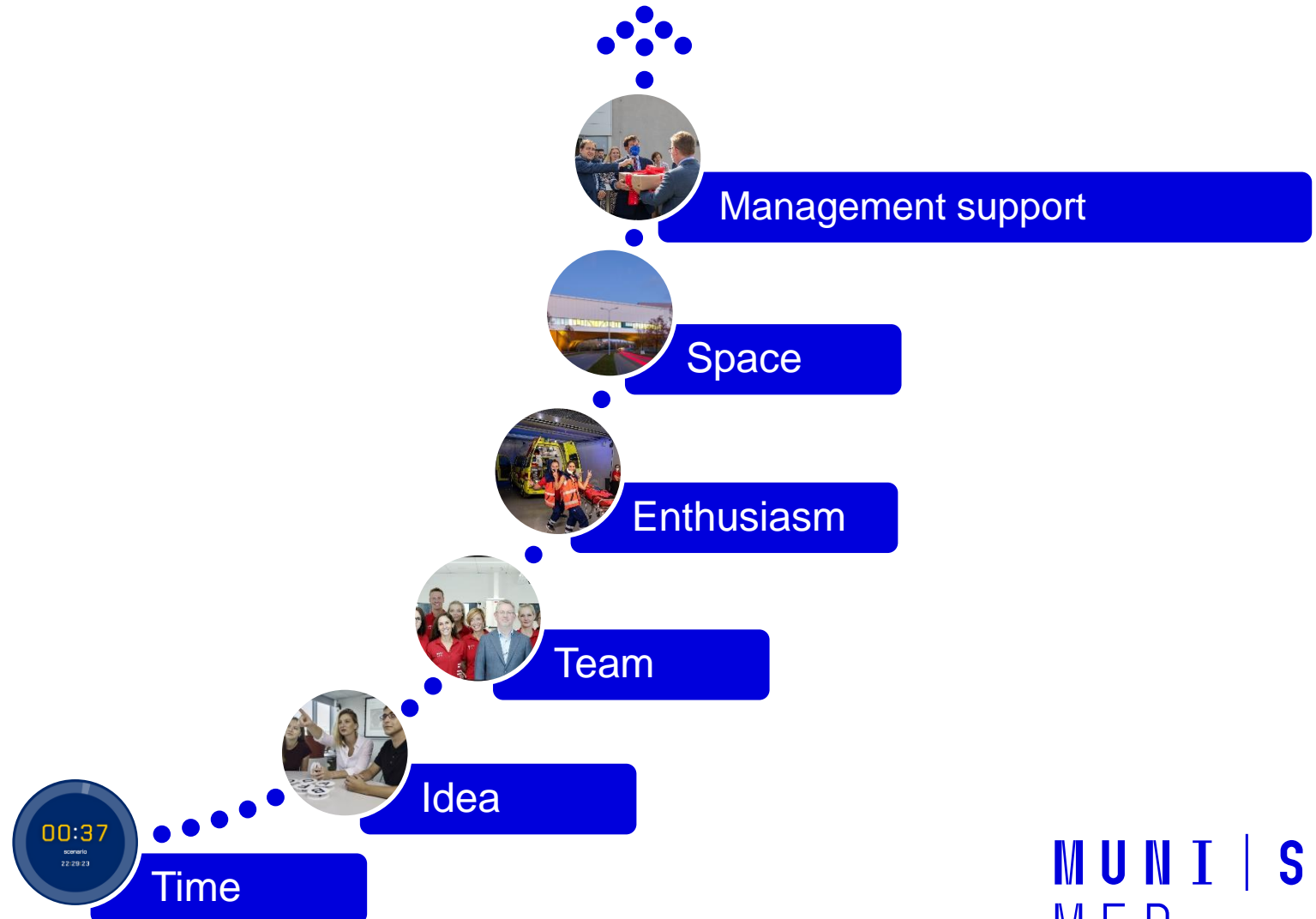
Obstacles for change during pandemic



Obstacles for change during pandemic

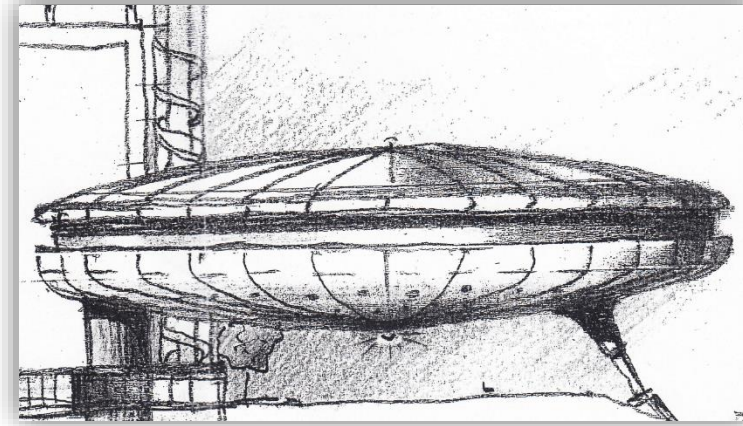


What did we need for a change?



History and Development of Simulation Centre

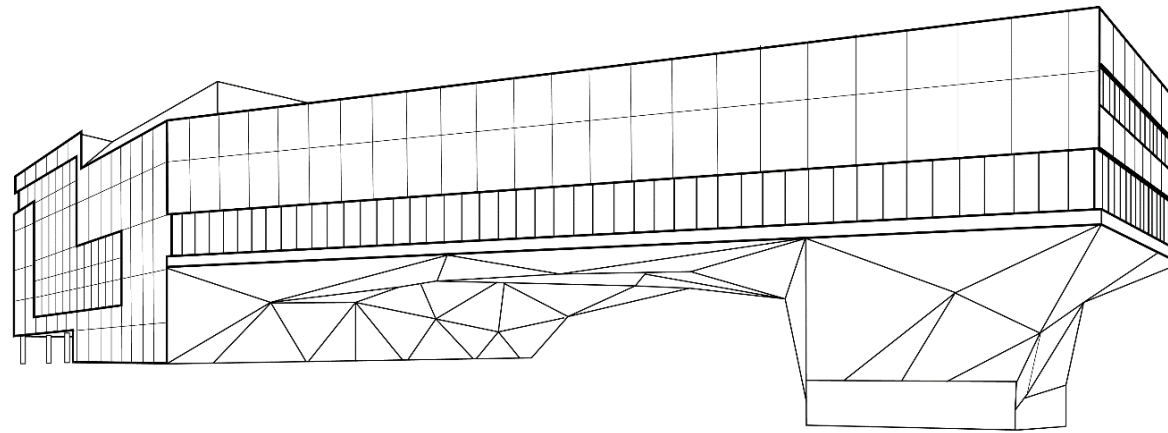
- The Faculty of Medicine simulation center project was launched in **2014**
 - **Multidisciplinary team**
- From the beginning, significant cooperation with **foreign partners**
 - Simulation centers (Austria, Germany, Switzerland)
 - Virtual Patient (Great Britain, Greece, Poland, Sweden)
- **Emphasis on:**
 - Building
 - Facilities
 - Staff education and training

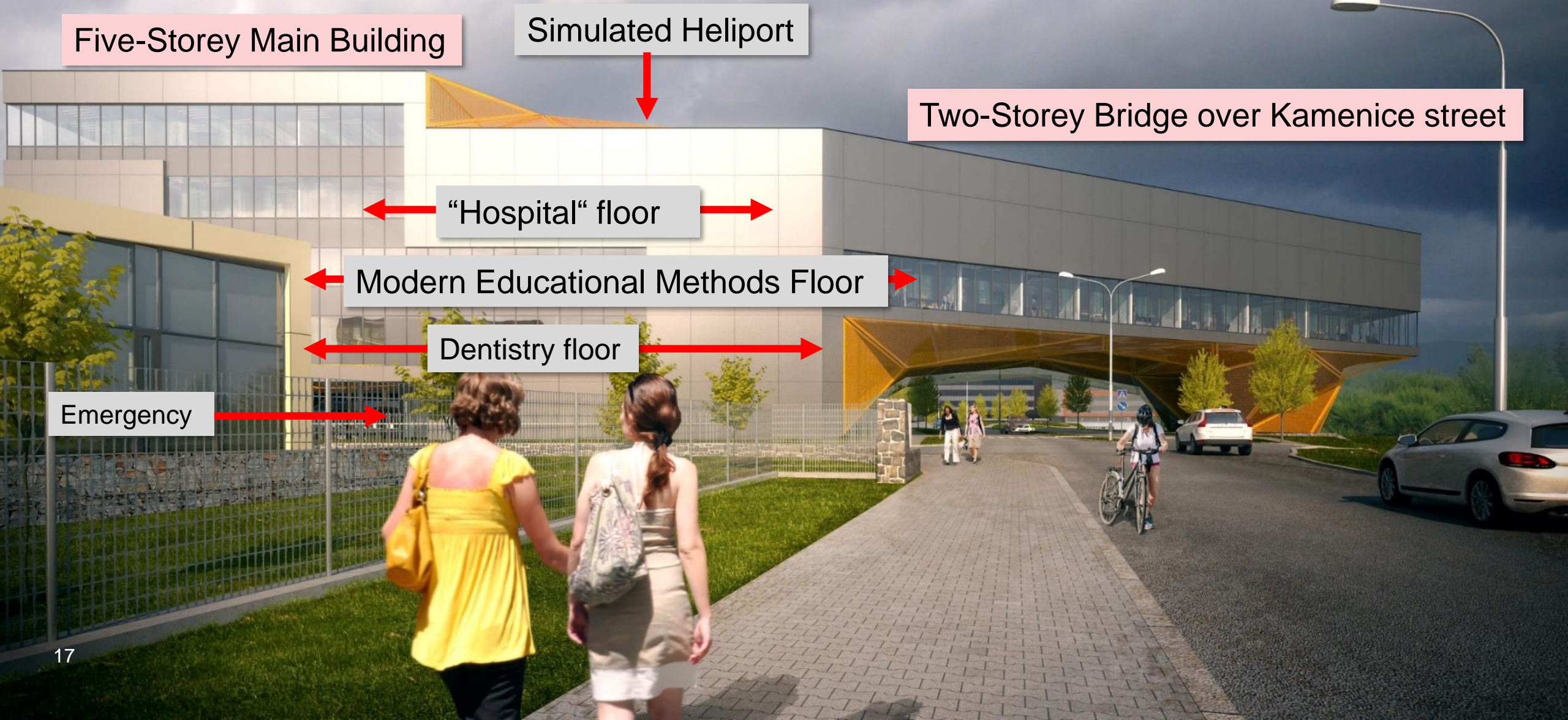


SIMU building

Simulation Center of Medical Faculty of Masaryk University

- 7 950 sq. meters usable area
- 3 215 sq. meters built-up area





New Spaces for Integrated Simulated Learning

1. "Hospital environment" for team interaction training

Operating Rooms, Intensive Care Unit / CCU, Emergency, Standard Department, Neonatal ICU, Labour Ward

2. Rooms for “debriefing“

Feedback to simulations, disassembly of key situations in video from previous simulation. They require special HW and SW equipment and AV technology. Key to realizing simulation training teamwork.

3. Field-specific spaces with special simulation equipment

Dentistry, virtual surgery, virtual dissection, “Basic or Essential Skills“.

4. Problem Based Learning rooms

Suitable for modern learning in small groups across the curriculum.

5. Modern lecture halls for the “Flipped Classroom“ concept

Teaching and learning of groups in “nests“.

2014, 36: 555–556 

COMMENTARY

Spaces for learning – A neglected area in curriculum change and strategic educational leadership

JONAS NORDQUIST¹ & ANDREW LAING²

¹Department of Medicine (Huddinge), Karolinska Institutet, Sweden and ²Strategy+, AECOM, School of Architecture, Princeton University, NJ, USA

"Hospital environment" for team interaction training



OR



ICU



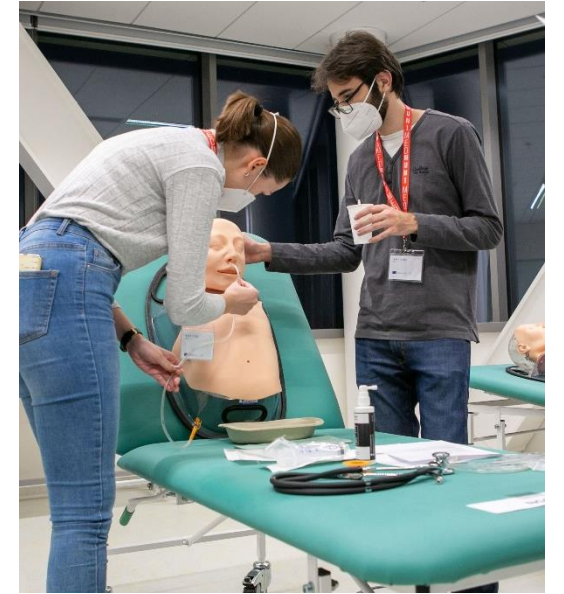
Emergency

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Rooms for “debriefing”



Field-specific spaces with special simulation equipment



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Problem Based Learning rooms



“Flipped Classroom” concept

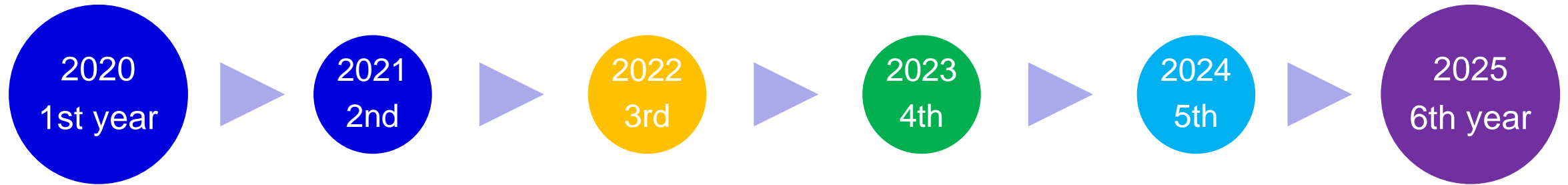


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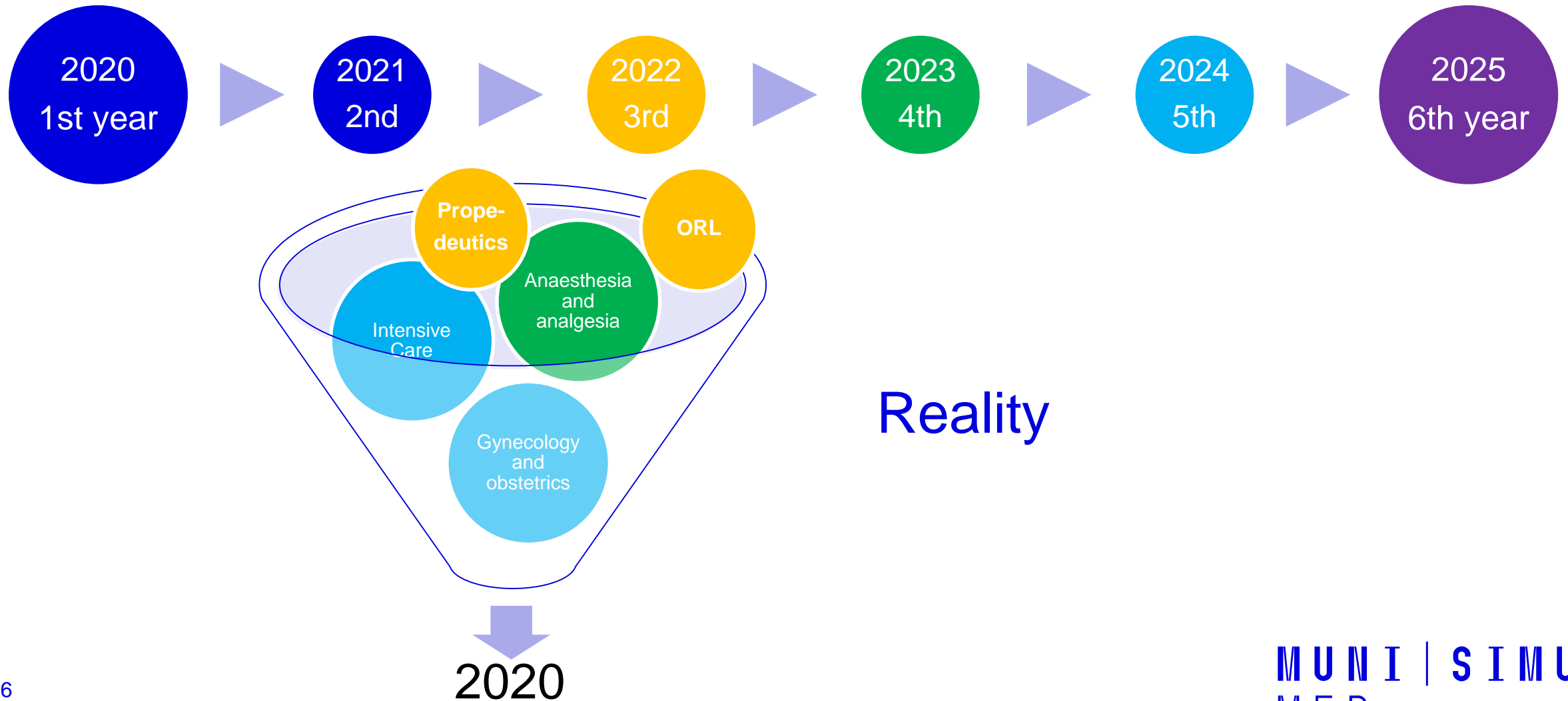
All rooms are
adaptable



Curriculum Implementation - plan



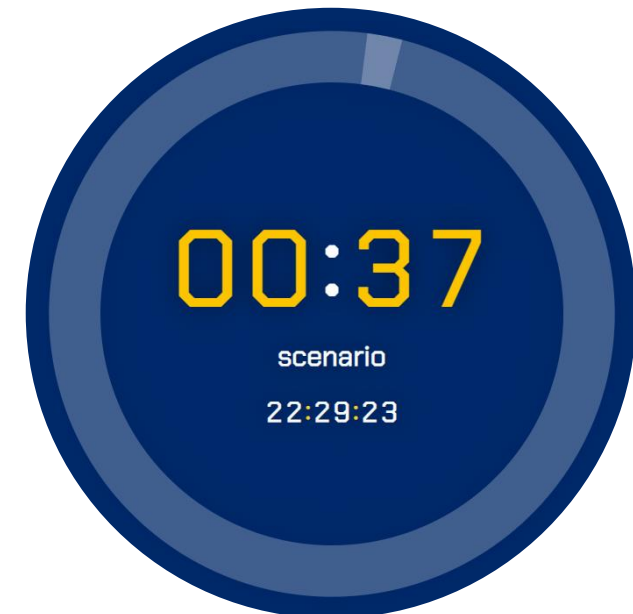
Curriculum Implementation - plan



Exact scheduling

Enables safe and effective practical teaching

OS 1 m.411 + JIP 1 m.455		
čtvrtek 11.3.2021		
čas	kurz	místnost
9:00-9:30	Představení lektorů a účastníků	
9:30-11:00	Úvodní blok	
11:00-12:00	Dvořáček	OS 1 m.411
12:00-13:00	Oběd	
13:00-13:30	S01	OS 1 m.411
13:30-14:00	S01	OS 1 m.411
14:00-15:00	S03+WS	OS 1 m.411
15:00-15:30	S08	JIP 1 m.455
15:30-16:00	S08	JIP 1 m.455
16:00-16:30	S04	OS 1 m.411
16:30-17:00	S04	OS 1 m.411
17:00-17:30	S11	OS 1 m.411
17:30-18:00	S11	OS 1 m.411



Benefits of simulation techniques

Why the simulation medicine is ideal for teaching during pandemic?







XI. ROČNÍK SEKCE NELÉKAŘSKÝCH ZDRAVOTNICKÝCH PRACOVNÍKŮ XIII. KONFERENCE AKUTNĚ.CZ

20. 11. 2021

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UNIVERZITNÍ KAMPUS BOHUNICE



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Development and Education



MINISTRY OF EDUCATION,
YOUTH AND SPORTS

Thank you!

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