

World leading Attack Detection on Biometric Systems

Designed to provide attack detection by disclosing manipulated biometric samples and to provide the best multimodal authentication security with attack detection



Outline

- Introduction to Mobai
- Our perspective on key issues for secure and easy travel across borders



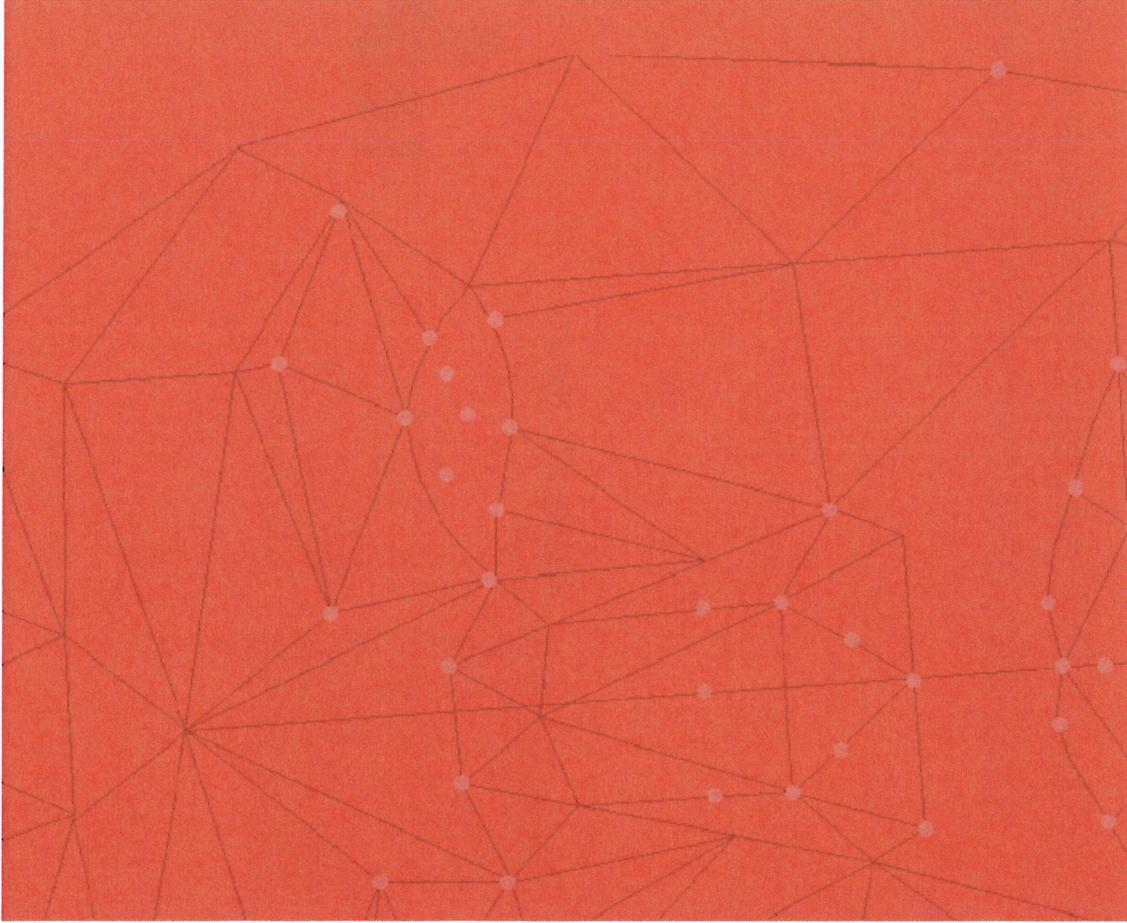
A spin-off company from



NORWEGIAN BIOMETRICS LABORATORY



**Norwegian University of
Science and Technology**



The NTNU researchers have over the years participated in the progress of the field, and this is the founding platform for Mobai

Significant contributor to standards

ISO/IEC JTC 1/SC 37

Biometrics

123

published ISO standards*
under the direct responsibility
of ISO/IEC JTC 1/SC 37



Several large scale International research projects (National, EU, US, industrial funded)



SOTAMD

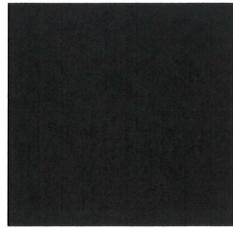
Recognized research world wide

«Vulnerability on Commercial Face Recognition Systems» awarded **best paper**
IWBF-2019, Cancun, Mexico

«Reducing the Error Rates in Template Protection for Iris Recognition» awarded **best paper**
ISBA-2019, Hyderabad, India



Our vision is to enable the secure use of biometrics



CEO

Experienced business developer with relevant domain knowledge from ICT, finance and energy



Tech lead – development

PhD, Dept. of Information Security and Communication Technology, NTNU



Tech lead – concept

Researcher, Dept. of Information Security and Communication Technology, NTNU



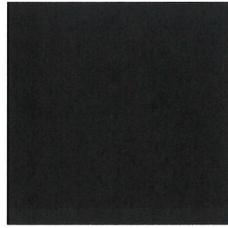
Tech advisor

Professor, Dept. of Information Security and Communication Technology, NTNU



Tech advisor

Professor, Dept. of Information Security and Communication Technology, NTNU



Member of the board & business development

Innovation manager NTNU Technology Transfer AS



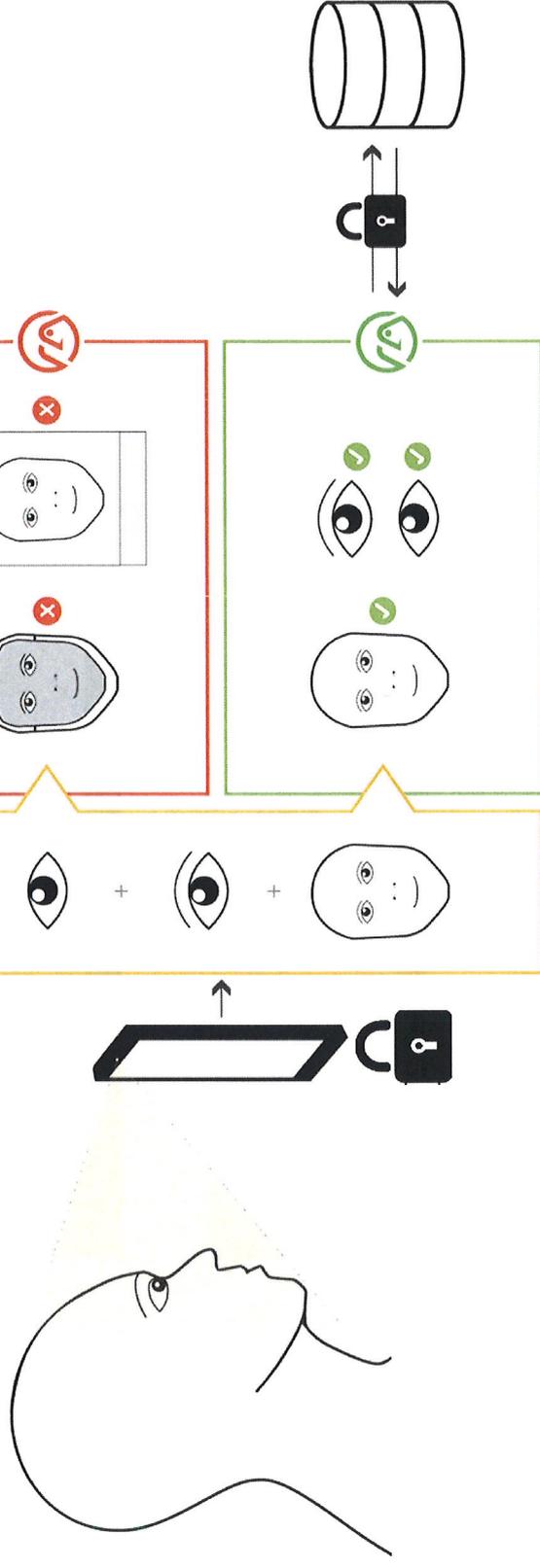
Chairman of the board

CEO og grunnlegger Kong Arthur AS

The Mobai technology is developed by an acknowledged research team at the Department of Information Security and Communication at NTNU.



Our Biometric Authentication (or standalone Presentation Attack Detection) utilize a multimodal combination of **face**, **iris** and **ocular** modalities to provide strong security and privacy protection.

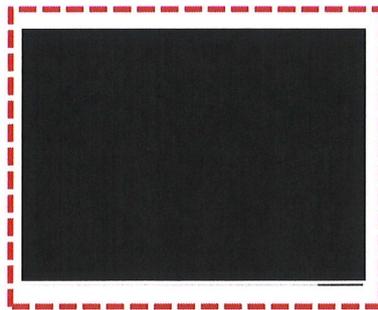


Patent pending

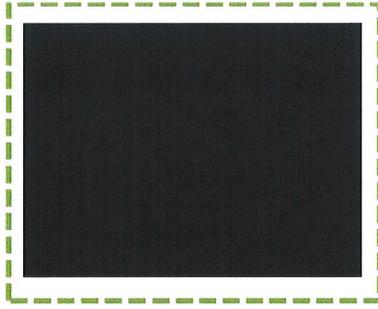
Face morph detection



Genuine Subject 1

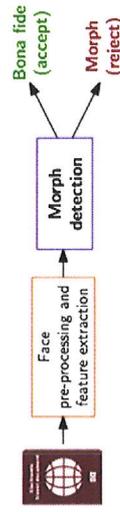


Morphed Identity

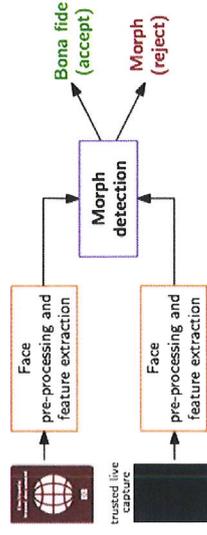


Genuine Subject 2

Detect from image alone



Combine with trusted capture





Norwegian University of
Science and Technology

NIST

FRVT MORPH

iMARS

image Manipulation Attack Resolving Solutions

H2020-SU-SEC-2019



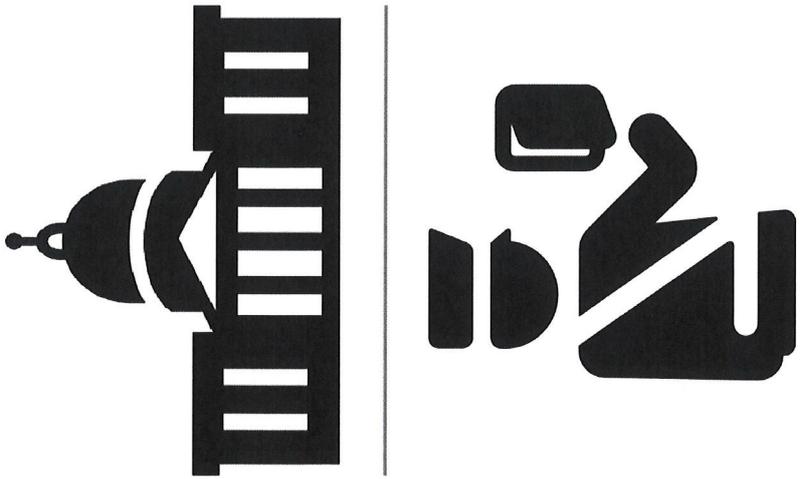
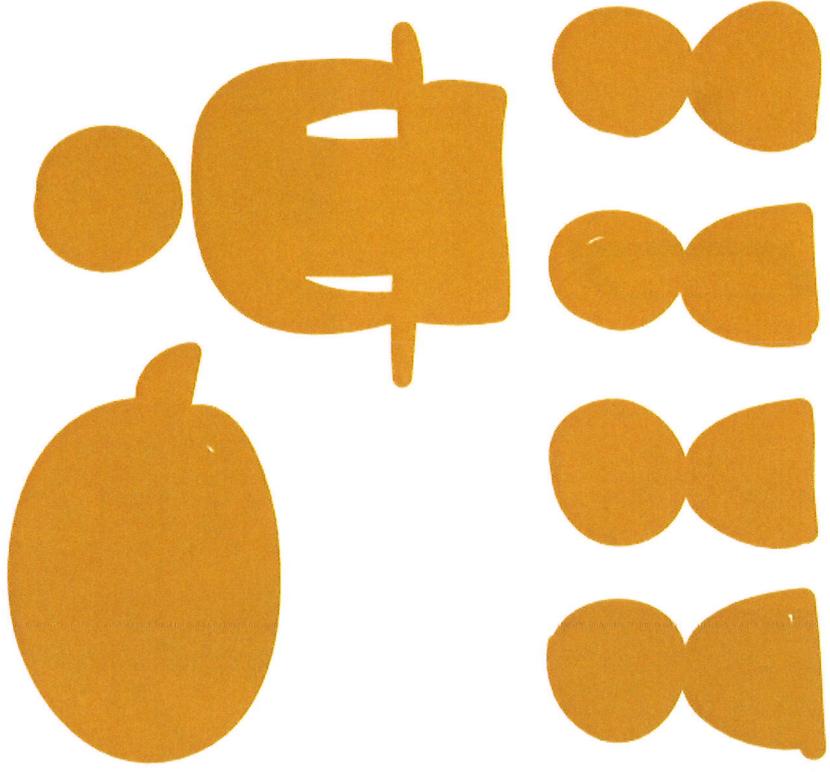
Three must win battles
for a secure and efficient
travel process

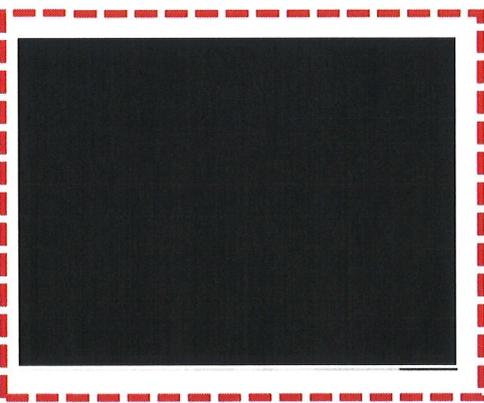
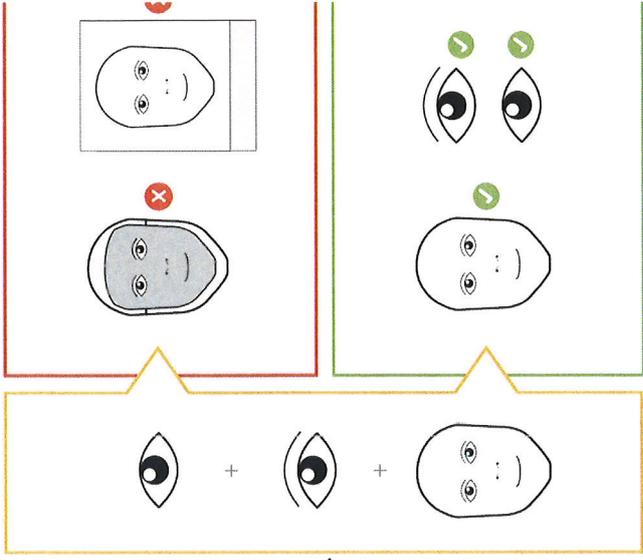


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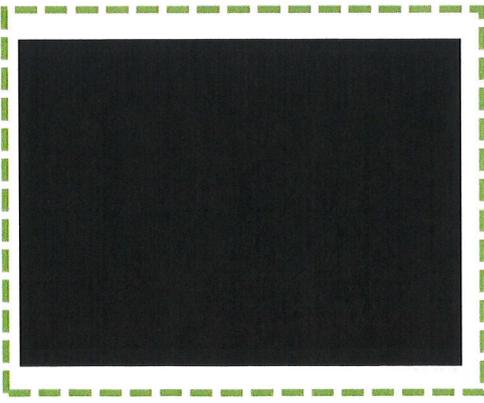
**Strong attack detection
in the travel workflow**







Morphed Identity



Genuine Subject 1

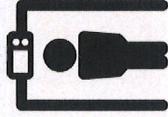
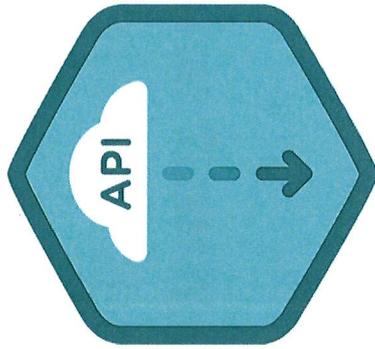


Genuine





Attack detection as a service



Use in existing processes where you issue documents, or control IDs and verify identity (e.g. eGates), and to develop new tools

Figure: Flatiron



Three must win battles
for a secure and efficient
travel process

Strong attack detection
in the travel workflow

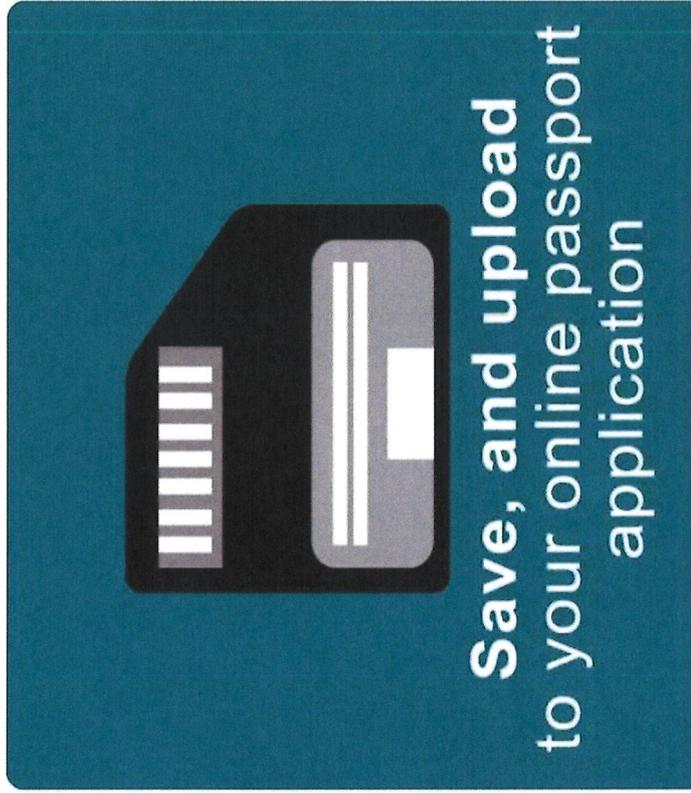
**Rethink the process of
issuing passports**





Her Majesty's Passport Office @HM_Passport · 4. okt. ✓

It's simple and easy to upload a digital photo to your online passport application.
Find out more here: [ow.ly/q1IT50vEivB](https://www.gov.uk/guidance/how-to-apply-for-a-passport)



TRUST



TRUST

Get adequate information

Avoid fraud and attacks

Cost-efficient



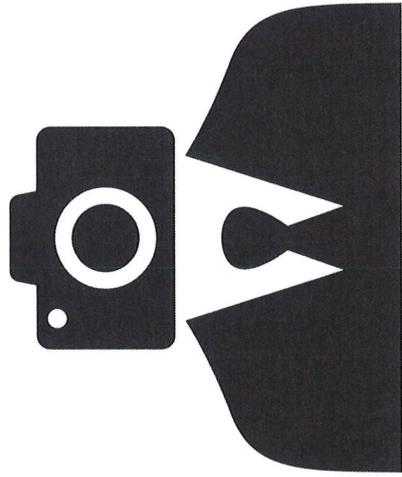
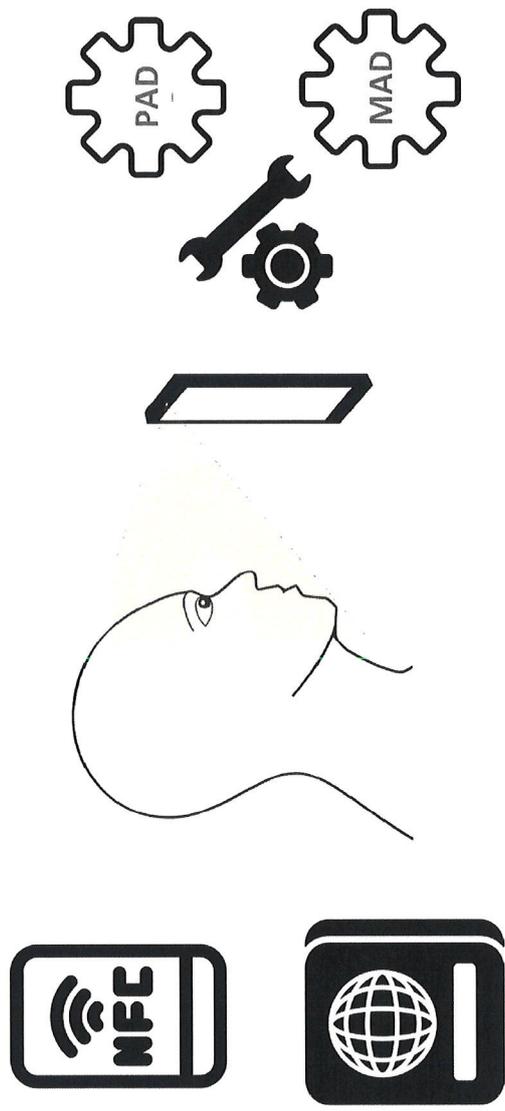


Figure. ibrandify, flaticon

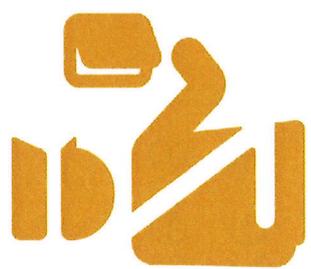
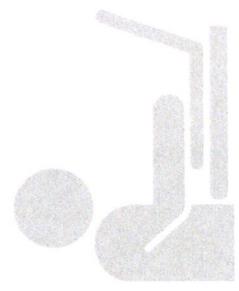
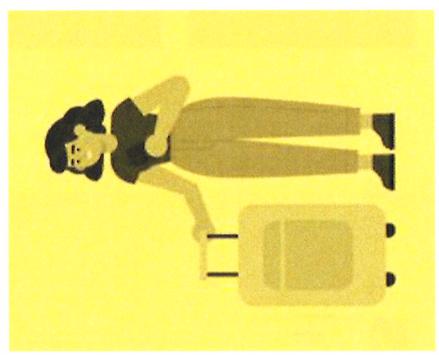
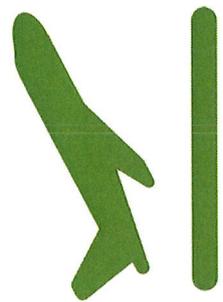
Three must win battles
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travel process

Strong attack detection
in the travel workflow

Rethink the process of
issuing passports

**World-class usability
and collaboration**





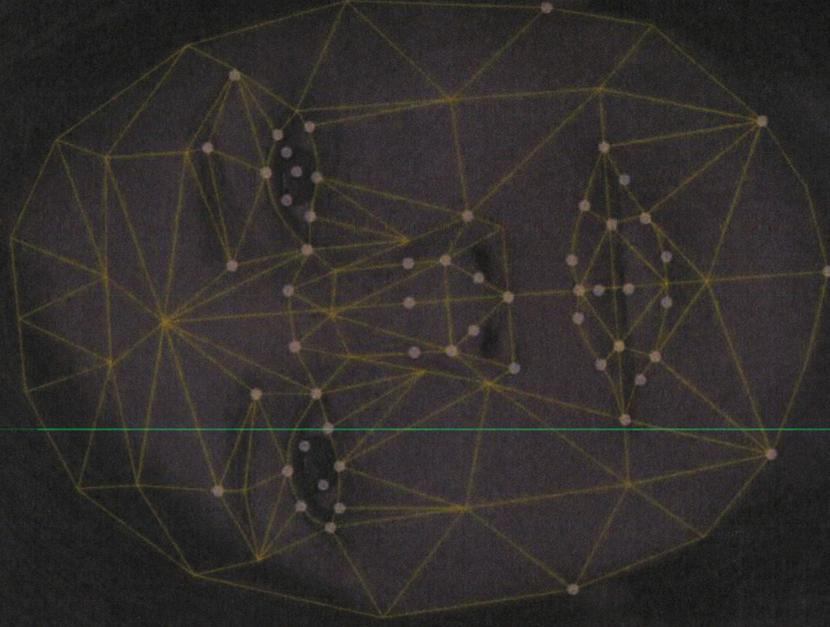
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