



24TH SAMOTER INNOVATION AWARD
International
Technical Innovation Competition

THE WINNERS

DEVELON

WINNER
in the category
HYDRAULIC EXCAVATORS
with
14W EREV

MOTIVATION

- *useful, multi-purpose concept for work on construction sites*
- *high and effective autonomy*
- *designed to work for long periods in urban settings*

The 14W EREV is a compact electric wheeled excavator designed with a regenerative drive system (eDrive), an advanced swing system (eSwing) and eWorking systems ensuring maximum efficiency with zero emissions. Intended for urban settings, the machine ensures maximum versatility in every situation, including improved visibility to ensure safe surroundings.

** Doosan Construction Equipment is now Develon*



**WACKER
NEUSON**
all it takes!

WINNER
in the category
TELEHANDLERS
COMPACT
with
TH412e

MOTIVATION

- *high performance in relation to size*
- *further expansion of an increasingly complete electric range*
- *machine easily handles a very large number of applications*

The compact design of TH412e electric telehandler means that it can operate in very confined spaces. The Li-ion battery management and monitoring system increases efficiency and safety; continuous autonomy of

up to 3.1 hours with the standard battery or 5.2 hours with the optional battery. The rear recharging hatch is easy to access and ensures and convenient recharging.



WINNER
in the category
TELEHANDLERS
MEDIUM
with
30.7

MOTIVATION

- *another forwards for safety with the MAPS system*
- *another step forwards in machine management with Merlomobility 1.1*
- *significant evolution of the high-performance compact telehandler*

The 30.7 compact telehandler raises safety standards thanks to a specific safety system, cab suspension, active people-recognition system, a LED lighting system that ensures optimal visibility in all conditions and real time machine function monitoring system, whereby the telehandler's functions can be limited or programmed in accordance with operating requirements.



WINNER
in the category
TELEHANDLERS
ROTARY - HIGH CAPACITY
with
RTH 10.37

MOTIVATION

- *high performance and high operating safety*
- *new operator ergonomics and visibility concept*
- *the Easy Access mode significantly increases operator safety*

The strengths of the new RTH 10.37 telehandler are the operator-oriented design of the cab, with a larger windscreen on the upper part for better visibility of overhead loads, and the user-friendly software. With a maximum lifting capacity of 10 tonnes and a maximum lifting height of 37 metres, this machines competes directly with the small crane sector.



WINNER
in the category
**LIFTING MACHINES
PLATFORMS**
with
UP&DOWN TB22-9

MOTIVATION

- *innovative versatility concept*
- *operating safety*
- *compact dimensions*

The Up&Down TB22-9 is a platform for inspecting viaducts and infrastructures. It can be mounted on category B vehicles and will be totally automated, thanks to 4.0 technology. It can operate on steep, sloping terrain and pass over the safety barriers along the sides of viaducts. Thanks to the three arms and the range of motion of the three joints, it can also switch without from the “overhead height” mode to the “under bridge inspection” mode without requiring manual intervention.



WINNER
in the category
**LIFTING MACHINES
MOBILE CRANES**
with
MC-250.09FL

MOTIVATION

- *significant increase in operating safety*
- *simple yet effective solution to a common problem*
- *high application versatility*

The MC250.09FL is capable of lifting significant loads when positioned close to the machine as regards centre of gravity but even at some height. The machine is equipped with a fully integrated, fully electric state-of-the-art cab yet equally evolves the concept of fully electric forklifts: the lifting column can be combined with the fork carriage as well as a hydraulic crane arm with an electronic system, load indicator and tip-over momentum limiter.



WINNER
in the category
**PLANTS
MOBILE**
with
C022

MOTIVATION

- *simple yet versatile and multi-purpose concept*
- *significant increase in safety*
- *optimal for work in cities and tunnels*

The Blend C019 and C022 are two prototype C Series material transport and unloading dump bodies featuring a belt discharge system designed for horizontal dumping without a tip-up dumper or truck-to-truck dumping involving various types of material.

The innovation is based on straightforward transport and unloading of asphalt, stone and sand without using a tipper. Total safety is assured, without any risk of tipping over and without any interference caused by cables or on-site equipment.



WINNER
in the category
**ATTACHMENTS
DEMOLITION HAMMERS**
with
EPB 48

MOTIVATION

- *a major step towards electrification of earthmoving equipment*
- *a functional and innovative concept for hydraulic excavator hammers*
- *a simple and easily achieved idea*

E-Attachments are accessories for electric machinery powered entirely by electricity, with voltage settings of 48, 96 and 600V. They perform all the functions of modern equipment at a third of their cost since they do not involve parts subject to wear and ensure the definitive elimination of hydraulic fluid. They also significantly reduce noise pollution.



WINNER
in the category
ATTACHMENTS
DEMOLITION AND RECYCLING
with
SH600R EAGLE 3

MOTIVATION

- *increased operational safety thanks to the optimized centre of gravity*
- *the new geometry ensures increased efficiency*
- *routine and special maintenance tasks are streamlined*

EAGLESHEARS 3 is the latest-generation of compact, sustainable and powerful shears, with a shorter frame than previous models. They provide a remarkable weight-performance ratio and better excavator stability thanks to shifting the centre of gravity to the rear. A single, built-in cutting guide means the mobile leg can provide 100% cutting capacity even at difficult angles.



WINNER
in the category
ATTACHMENTS
ROAD MAINTENANCE
with
ART 1000 - Asphalt Repair Technology

MOTIVATION

- *a revolutionary process for the road recycling sector*
- *low running costs*
- *high operating safety*

Simex ART 1000 is patented equipment for mini-loaders (track loaders, skid steer loaders) used to repair small areas of deteriorated road surfaces using cold asphalt regeneration technology. It re-uses 100% of the material found on-site without removing milled material or adding other aggregates. This technology avoids completely disrupting vehicle traffic and ensures immediate usability of the road after repair work.

MALAGUTI

EARTHMOVING EQUIPMENTS

WINNER
in the category
ATTACHMENTS
UTILITIES
with
VARIABLE VIBRATION DEVICE

MOTIVATION

- *high safety during use*
- *operating precision*
- *multi-purpose versatility*

The variable vibration device, mounted on a vibro-driver means vibrations can be eliminated by balancing the masses involved. It is possible to adjust equipment vibrations gradually; even when starting and stopping, moving masses from maximum to balanced vibration eliminates uncontrolled vibrations.



WINNER
in the category
ATTACHMENTS
TRACK-LOADER APPLICATIONS
with
TRACKSFORMER

MOTIVATION

- *increased operating safety in difficult contexts such as snow clearing*
- *increased versatility and efficiency*
- *revolutionary concept for the track-loader sector*

The Tracksformer system ensures that skid steer loaders can perform in every location since the tracks, without treads and duly drilled to allow bolts to be fitted, are transformed in relation to work requirements thanks to 4 types of tool: Snow, Work site, Asphalt, Underwood. Assembly and disassembly can be performed independently, thereby turning a skid steer unit into a highly versatile and high performance system that adapts to specific application environments.



WINNER
in the category
SOFTWARE APPLICATIONS
PLANTS
with
Q-PILOT

MOTIVATION

- *high production efficiency*
- *precise management control*
- *increased safety through process automation*

Q-Pilot streamlines production processes for crushing, screening and washing plant in the mining and recycling sector thanks to recognition sensors with artificial vision and a machine-learning algorithm. This means that every machine involved in work cycle operates under their ideal design conditions in relation to the raw material being processed. Advantages include reduced overheads and lower CO2 emissions, as well as increased safety at work.

HIDROMEK®

WINNER
in the category
SOFTWARE APPLICATIONS
OPERATING MACHINES
with
OPERA

WINNER
SPECIAL DESIGN PRIZE

MOTIVATION

- *user friendly interface*
- *revolutionary concept*
- *significant increase in operating safety*

The Opera Remote Workstation controls Hidromek wheeled and tracked machinery remotely, via the 5G network infrastructure. This eliminates the harmful effects of on-site work and can also be used as a simulator for operator training. Opera is a product in its own right as a modular control unit that adapts to all cabs. Standardise Unify all Hidromek machinery controls on a single platform.



WINNER
in the category
OTHER MACHINERY
TRACK-LAYING TRANSPORTERS
with
CARRY 107 EP
CARRY 105 EP

MOTIVATION

- *a simple concept designed specifically for construction sites*
- *modular, highly functional power supply system*
- *possibility of retrofitting existing machinery*

Carry 105 EP and Carry 107 EP belong to the new family of electrically powered mini-dumpers with universal removable batteries. A wheel-mounted construction site recharging station completes the technical solution. They have an on-board mechanical power generator with an electricity power supply unit that is completely interchangeable with the internal combustion engines driving the mini-dumpers themselves. Among other things, this allows retrofitting fleets of mini-dumpers with conventional engines already in circulation.



WINNER
in the category
OTHER MACHINERY
UTILITIES
with
MDVN32B
MDVN32E

MOTIVATION

- *operational flexibility*
- *sustainable electrification*
- *solves genuine problems encountered on construction sites*

The MDVN 32E was developed to supply compressed air on construction sites without needing internal combustion engines: it can therefore operate where diesel engines are forbidden. Nevertheless, a Stage V 40 HP petrol engine can also be mounted on the same chassis and bodywork capable of delivering 3200 l/min at a constant 7 bar. Such power, for a diesel engine, could only be achieved with an electronically managed, common rail engine with post-treatment exhaust gas.

